



RESEARCH PAPER 09/11
4 FEBRUARY 2009

Expansion of Heathrow Airport

On 15 January 2009 the Secretary of State for Transport, Geoff Hoon, announced that the Government's three conditions for supporting a third runway at London Heathrow Airport had been met. The Government therefore invited BAA, the owners of Heathrow, to bring forward proposals to build a third runway and a sixth terminal at Heathrow.

In due course BAA will bring forward a planning application. Depending on when this occurs, the application will proceed through either the current planning system or under the new procedure for major infrastructure approvals set out in the *Planning Act 2008*.

The decision is generally supported by business but is opposed by environmental groups as well as both the Conservative and Liberal Democrat parties and the Mayor of London, Boris Johnson.

This paper gives an overview of both the transport and environmental policy background in which this decision has been taken; the planning aspects of the proposal; its anticipated environmental impacts; and relevant statistical issues.

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Summary

This paper provides an overview of the current proposals to further expand London Heathrow Airport with a third runway and a sixth terminal. These proposals date back to the Government's 2002 consultation that proceeded the 2003 Aviation White Paper and reached their culmination in January 2009 when the Secretary of State for Transport announced that the expansion of Heathrow in this way would meet the criteria laid down by the Government in that White Paper. In between these dates there was a consultation on the various options for developing Heathrow, to which the Department received approximately 70,000 responses. This paper looks at how we got here, where we are and what the future holds for the expansion of Heathrow. It includes the following:

- **Transport policy:** a brief history of how Heathrow has expanded since the Second World War, including the policy initiatives and decision by both the 1979-1997 Conservative Government and the present Labour Government; and an overview of the surface access issues at the airport.
- **Environmental issues:** the potential environmental impacts of expanding Heathrow and the various proposals put forward by the Government for addressing them.
- **Planning process:** a description of the possible planning processes that might be used for an application for the new runway; a discussion whether the Government announcement of support for the runway pre-empts the planning decision.
- **Statistical projections:** how the DfT assessed the benefits and costs of Heathrow expansion; analysis of the various assumptions used, particularly those used to project air passenger demand and carbon dioxide emissions over several decades; and the implications of changes in those assumptions.

Further information on all these issues is available for Members of Parliament and their staff on the Parliamentary intranet and for members of the public on the Department for Transport, Defra and CLG websites.

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I Transport policy

A. A brief history of Heathrow

Originally designated 'London Airport', London Heathrow Airport (LHR) officially opened in May 1946 after it had been transferred from military to civilian control in January of that year. A December 1945 Command Paper on British Air Services stated that: "Heathrow will be designated as the long-distance airport for London and will be developed to the highest international standards required for trans-oceanic aircraft".¹ A July 1948 report by the Select Committee on Estimates gives the following account of the beginnings of the airport:

London Airport is being constructed at Heathrow on a site which was originally selected during the war for conversion into an RAF aerodrome. At that time it was intended that there should be three runways forming a triangle, all to the south of the Bath Road. Work was begun but not completed when the war ended and the aerodrome was not in fact used by the RAF.

As early as 1943, before the development of the site was begun, the department of Civil Aviation of the Air Ministry realised that Heathrow would be a suitable site for the construction of London's major civil airport, in place of Heston which was no longer thought to be satisfactory (...)

[A lay out panel was subsequently set up and reported in 1946, this proposed] three main stages in the plan of development. Stage I covers the completion of the runways begun for the RAF, with temporary terminal buildings on a site between the triangle of runways and the Bath Road. Stage II allows maximum air traffic capacity south of the Bath Road, with the use of six runways. Such portions of the permanent terminal buildings as are needed to meet requirements will be completed and all the areas allocated for aircraft maintenance will be available for development. Stage III, the final stage, includes use of land north of the Bath Road, the road itself being diverted north of the airport. There will then be nine runways. The three stages were originally expected to be completed in 1946, 1949 and 1953 respectively (...)

The construction of the last three runways on the land north of the Bath road, under Stage III, involves diverting the road itself some distance to the north and demolishing a number of houses. It was agreed that, as alternative accommodation for the present occupants has first to be provided, the runways cannot be completed for a number of years.²

The Committee concluded that: "The choice, during the war, of Heathrow, as the site for London's major civil Airport was well made and allowed planning to be begun as early as was practicable".³ However, by 1963 the noise impacts of the airport caused the Committee on the Problem of Noise to report to the Lord President and the Minister of Science that:

¹ Ministry of Civil Aviation, *British Air Services* (Cmd 6712), December 1945, para 21

² Select Committee on Estimates, *Construction of London Airport* (eighth report of session 1947-48), 202, July 1948, paras 2, 3, 5 & 10

Heathrow has proved to have been established in a much too densely populated area, and no good solution to the noise problem is possible ... We are convinced that the degree of exposure to noise in areas close to the Airport will not be materially reduced and, indeed, will get a good deal worse, unless appropriate measures are taken now.⁴

The first aircraft to land at LHR was a BOAC Lancastrian from Australia. There were no terminal buildings and passengers checked in at a temporary tent village on the north side of the airfield. In April 1955 Heathrow's first real terminal, the 'Europa Building' (the current T2), opened for short-haul flights. In April 1968 a new short-haul building (now T1) was opened - at the time the largest airport terminal in Europe. Terminal 3 was expanded in 1970 to accommodate the new Boeing 747s and in 1976 Concorde began operating from the airport. Terminal 4 was opened in April 1986. Terminal 5 was opened in February 2008.

LHR is owned by BAA plc. The British Airports Authority was established by the passing of the *Airport Authority Act 1966*, to take responsibility for four state-owned airports at London Heathrow, Gatwick and Stansted and Prestwick in Scotland. In the next few years, the authority acquired responsibility for Glasgow, Edinburgh and Aberdeen airports. Thirty years later, the *Airports Act 1986* restructured the Authority into a main holding company, BAA plc, with seven separate airport companies operating London Heathrow, Gatwick and Stansted; Edinburgh; Glasgow; Aberdeen; and Southampton airports. It was privatised in July 1987. In June 2006 the Ferrovial Consortium, a Spanish construction firm, bought BAA for £10.3 billion.⁵

B. Heathrow in context

Passenger numbers:⁶

- LHR had 67.9 million terminal passengers in 2007. This was the highest of any airport in Europe, and the third highest in the world, behind Hartsfield-Jackson International in Atlanta and O'Hare International in Chicago
- Of those passengers, 62.1 million were on international flights, the highest number of any airport in the world. Charles De Gaulle in Paris had 54.9 million international passengers, Schipol in Amsterdam had 47.7 million and Frankfurt International 47.1 million
- Of UK airports, Gatwick had the next highest number of terminal passengers, just over half the number at LHR. LHR accounted for 31% of terminal passengers at UK airports in 2007
- Growth in passenger numbers has, however, been slower at LHR than at other UK airports. LHR had 17% more passengers in 2007 than 1997, compared with an increase for all UK airports of 66%

Flight numbers:⁷

³ *ibid.*, para 29

⁴ Committee on the Problem of Noise, *Final Report* (Cmnd 2056), July 1963, paras 306-307

⁵ "Ferrovial lands BAA with final offer of £10.3bn", *The Guardian*, 7 June 2006

⁶ DfT, [Transport Statistics Great Britain 2008](#)

⁷ *ibid.*

- There were 476,000 air transport movements (take-offs or landings) at LHR in 2007, 24% of the UK total and the highest of any UK airport. Gatwick had the next highest share at 13%
- Growth in air transport movements has, however, been slower at LHR than at other UK airports. LHR had 11% more flights in 2007 than 1997, compared with an increase of 44% for all UK airports
- The number of air transport movements at LHR in 2007 was less than half that at Hartsfield-Jackson International in Atlanta and below that at Charles de Gaulle in Paris and Frankfurt International

Cargo:⁸

- Excluding mail and passengers' luggage, LHR handled 1.3 million tonnes of cargo in 2007, 58% of the UK airports total

The table below shows some comparisons of LHR with other major world airports:

Activity at major airports: 2007

Country	Location	Name	Terminal passengers (millions)		Freight loaded/ unloaded (thousand tonnes) ¹	Air transport movements (thousands)
			All	International		
USA	Atlanta	Hartsfield-Jackson International	89.4	8.9	720	994
USA	Chicago	O'Hare International	76.2	11.9	1,524	928
UK	London	Heathrow	67.9	62.1	1,311	476
Japan	Tokyo	Haneda	66.7	1.8	852	331
USA	Los Angeles	Los Angeles International	61.9	17.1	2,078	681
France	Paris	Charles De Gaulle	59.9	54.9	2,297	552
USA	Dallas	Dallas-Ft.Worth International	59.8	5.5	725	685
Germany	Frankfurt	Frankfurt International	54.2	47.1	2,190	492
China	Beijing	Capital	53.6	12.7	1,374	394
Spain	Madrid	Barajas	51.8	29.3	322	475
USA	Denver	Denver International	49.9	2.2	260	614
USA	New York	J. F. Kennedy International	47.8	21.8	1,596	443
Netherlands	Amsterdam	Schiphol	47.7	47.7	1,610	436
USA	Las Vegas	McCarran International	47.6	2.1	92	609
China	Hong Kong	Hong Kong International	47.0	47.0	3,742	296
USA	Houston	G. Bush Intercontinental	43.0	7.7	409	603
USA	Phoenix	Sky Harbor International	42.2	1.7	257	538
Thailand	Bangkok	Bangkok International	42.2	31.1	1,220	266
USA	New York	Newark International	36.4	10.7	943	444
USA	Orlando	Orlando International	36.4	2.3	187	359
USA	Detroit	Wayne County	36.1	3.1	223	467
USA	San Francisco	San Francisco International	35.8	8.9	563	380
Japan	Tokyo	Narita	35.4	34.2	2,218	191
Singapore	Singapore	Changi	35.2	35.2	1,895	221
UK	London	Gatwick	35.2	31.1	171	259

1 Includes mail.

2 All commercial movements including positioning and local movements.

3 International commercial air transport movements data for all world's major airports was not available at time of print.

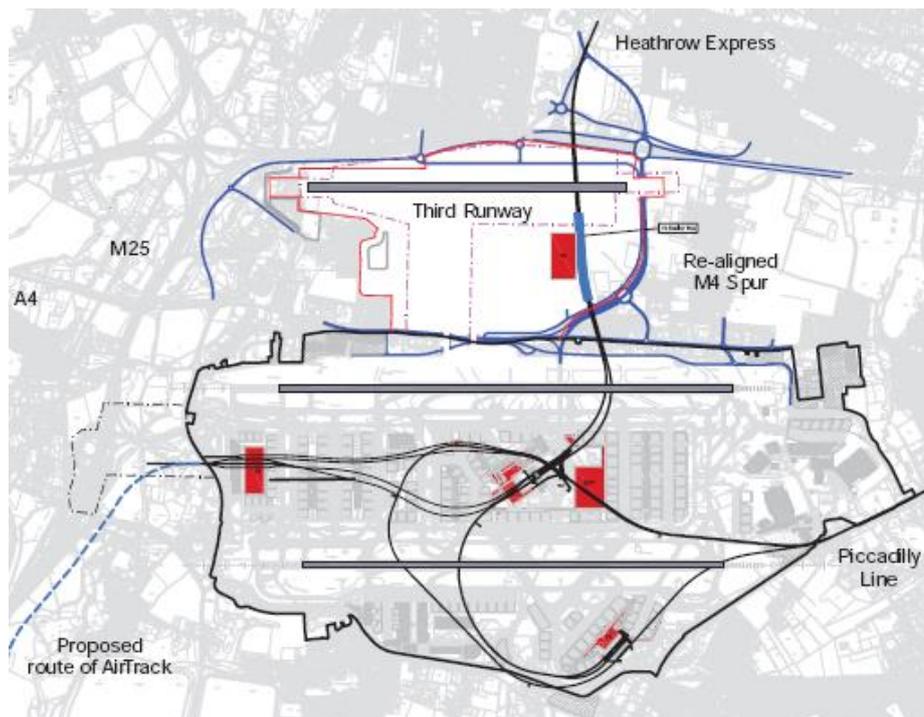
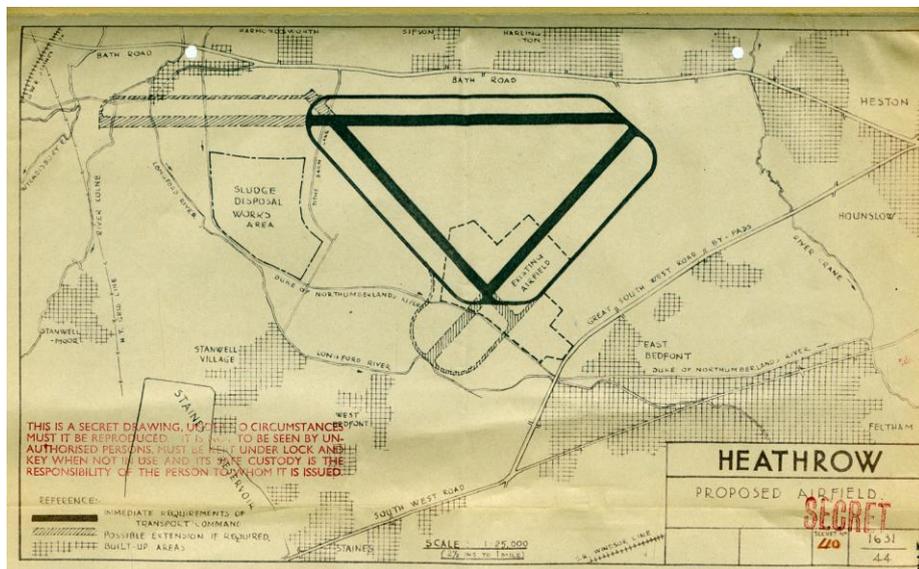
Source: DfT, *Transport Statistics Great Britain 2008*

⁸ *ibid.*

Miscellaneous:⁹

- 92 airlines fly to 187 different destinations
- LHR directly employs 70,000 people, including around 4,500 BAA employees. BAA estimates that the airport supports 100,000 further jobs indirectly

The two maps below show the original plans for Heathrow, drawn up in the 1940s and the most recent plans for expansion, as set out in the 2007 consultation document:



⁹ www.baa.com

C. Policy of the Conservative Government on Heathrow expansion, 1979-1997

In 1979 the major aviation decision faced by the incoming Conservative Government was whether to go ahead with a 'third London airport' to sit alongside Heathrow and Gatwick. In December 1979 it also gave the go-ahead for the construction of a fourth terminal at LHR.¹⁰ In February 1978 the previous Labour Government had published a White Paper on airports policy which came to the conclusion that "Heathrow's ultimate development should not go beyond that of a four-terminal airport". In coming to that conclusion, the White Paper stated: "Heathrow occupies a restricted site which is markedly smaller than that of most other international airports though these handle significantly less traffic. The Government does not consider that it would be feasible to handle satisfactorily such a volume [50 million passengers per year] at Heathrow".¹¹

In December 1979 the Conservative Government published the report of the Advisory Committee on Airports Policy, set up by the Labour Government to examine long term prospects for airport capacity in London and the South East.¹² At the same time, the Secretary of State for Trade, John Nott, made a statement to the House on the Government's airports policy. On LHR, he stated:

At Heathrow capacity is virtually exhausted, and that is why we must continue to divert traffic to Gatwick In order to provide additional capacity the Government have decided to accept the inspector's recommendation for a fourth terminal at Heathrow ... a fifth terminal should not be provided.¹³

In June 1985 the Government published its White Paper on airports policy. Its remarks on the future capacity of Heathrow were given in the context of the debate at the time - centred on the need for a fifth terminal rather than more runway capacity:

The arguments in favour of a fifth terminal are that it would enable the fullest possible use to be made of Heathrow's runways and give resident airlines assured room for expansion. The Government agrees with the Inspector that there is a strong case for allowing traffic at Heathrow to develop to its full potential but it believes that a fifth terminal cannot yet be regarded as a real option until the feasibility of releasing the Perry Oaks site has been established. Bearing in mind the Government's wish to encourage competition there is some doubt about the rate of growth of average aircraft loads and therefore when sufficient runway capacity will be available to justify a fifth terminal. The Government is therefore not prepared to make any commitments at this stage on the question of a fifth terminal at Heathrow but will keep the matter under review...

¹⁰ Dept. of Environment, Dept. of Trade press notice, "Fourth terminal, Heathrow", 17 December 1979; an application for a fifth terminal on the Perry Oaks site was consistently rejected in the early 1980s (see, e.g.: HC Deb 17 December 1979, c36; Depts. of the Environment and Transport, Letter to *Jameson and Hill*, 5 June 1985 [available from the House of Commons Library])

¹¹ Secretary of State for Trade, *Airports Policy* (Cmnd 7084), February 1978, paras 88-89

¹² Department of Trade, *Report of the Advisory Committee on Airports Policy*, December 1979, para 1.3

¹³ HC Deb 17 December 1979, c36

The Government is however convinced that demand will continue to grow at Heathrow. It was suggested at the Inquiries that about 42 mppa could eventually be accommodated at the airport within the four terminals already provided, bearing in mind that the development at Stansted and of appropriate traffic distribution policies would help to cope with mismatch between airports within the London system. The Government will invite the BAA to consider whether any improvements are possible which could help to accommodate traffic in excess of 38 mppa at Heathrow, at standards acceptable to the travelling public and the local environment.¹⁴

In 1990 the Government commissioned the runway capacity to serve the South East (RUCATSE) study; this reported in July 1993. RUCATSE concluded that: "Heathrow would afford the greatest benefits to the air transport industry and passengers, but it would also give rise to the greatest scale of disbenefits in terms of noise impact on people, land use and property demolition".¹⁵ In an adjournment debate in April 1994 the Minister for Transport in London, Steve Norris, had the following to say about a third runway at LHR:

In summary, the impacts of a third runway at Heathrow would ... be the greatest of all the sites that were contemplated. The scales of impacts of new runways at Gatwick and Stansted would be equal in noise and environmental terms, but overall I do not think that it is a matter of dispute that the Heathrow option would have the most serious impact.¹⁶

On 2 February 1995 the Secretary of State for Transport, Dr Brian Mawhinney, gave the Government's official response to RUCATSE:

The Government have concluded that RUCATSE's analysis shows a strong case for additional runway capacity in the south-east; but that more work is needed to inform decisions on any proposals which operators may bring forward for that additional capacity (...) I am clear that BAA should not consider the options studied in RUCATSE for a third runway at Heathrow or for a second runway at Gatwick.¹⁷

In May 1996 the Transport Select Committee published a report on UK airport capacity, with commentary on both the RUCATSE study and the Government's response. On the subject of new runway capacity at Heathrow it said:

The Department told us that it had ruled out the options of full parallel runways at Heathrow and Gatwick because "the environmental objections to both those options were so enormous as to make them unrealistic ... at Heathrow ... it would have involved destruction of 3,300 houses ... Ministers took the view that that would be so environmentally damaging as not to be sensible to proceed [...]" (...)

¹⁴ Secretary of State for Transport, *Airports Policy* (Cmnd 9542), June 1985, paras 5.19-5.20

¹⁵ Department of Transport, *Runway capacity to Service the South East: a report by the Working Group*, July 1993, para 26; appendix A gives full details of the case for and against a third runway at Heathrow

¹⁶ HC Deb 29 April 1994, c571

¹⁷ HC Deb 2 February 1995, cc859-860W

BA wanted to see additional runway capacity at Heathrow or Gatwick, but accepted the environmental problems with development at Heathrow. The AUC [Air Transport users' Council], however, thought that it was "irresponsible" to advocate another runway at Heathrow, as "socially and politically it is a non-starter". Similarly, the AOA [Airport Operators' Association] accepted that ... "a third parallel runway at Heathrow is not a politically achievable solution" (...)

A close parallel runway would not be as far from the existing runway as the fully independent parallel runways at Heathrow are, and could not be operated independently. This means that it would not add as much capacity as an additional parallel runway, but would have "less widespread environmental impacts".

BAA told us that, for reasons of space, it did not believe that a close parallel runway would be possible at Heathrow.¹⁸

The Government called in BAA's planning application for a fifth terminal at LHR on 17 March 1993; the planning inquiry for the same began on 16 May 1995.¹⁹ The Terminal 5 inquiry ended up being one of the longest in UK planning history and was concluded only in 1999, after the election of a new Labour Government in 1997.

D. Policy of the Labour Government on Heathrow expansion, 1997-2009

1. Aviation White Paper, 2003

In May 1997 the inquiry into Heathrow Terminal 5 was only half completed and it would not be until after the following election in 2001 that the Secretary of State for Transport, Stephen Byers, announced that the Government had given its approval to the development of Terminal 5. He said that conditions had been imposed to protect the interests of those living in the vicinity of the airport. In the debate that followed Mr Byers' announcement he was asked about a third runway at LHR. He said:

The third runway will be considered in the context of both the south-east of England study and the aviation White Paper, which we shall publish next year. I am aware of no proposals to change the alternation of runways ... I understand why that is important.

I should like to think that the westerly preference decision that we have already introduced is bringing real benefits and is making an improvement to the quality of life of people living in the west of London. We shall certainly want to ensure that those benefits are retained.²⁰

¹⁸ Transport Committee, *UK Airport Capacity* (second report of session 1995-96), HC 67, May 1996, paras 167 & 169, 172-173

¹⁹ Department of the Environment press notice, "Heathrow terminal five planning inquiry set for May 1995", 6 September 1994

²⁰ HC Deb 20 November 2001, c186W

In the meantime, the Government published its transport White Paper, in July 1998, indicating that it would “prepare a UK airports policy looking some 30 years ahead” which would “take account of the demand for airport capacity for scheduled, charter, business and freight aviation and the related environmental, development, social and economic factors”.²¹

The White Paper on aviation was published in December 2003 and followed a series of studies and consultations. The *South East and East of England Regional Air Services Study* (SERAS) provided an appraisal of the physical dimension of future airports policy in the South East. It presented the Department for Transport²² with a range of ‘packages’ and options for developing various combinations of airports throughout the South East.²³ In 2002 the Government published a series of consultation documents seeking views on the future development of air transport in the UK. One of the consultation documents covered the South East of England. In November 2002, the High Court held that it was wrong to exclude from that consultation document options for development of new runways at Gatwick. The Government decided not to appeal the judgment and published a second edition of the consultation document covering the South East of England.²⁴

The consultation sought to solicit opinion on three central questions: whether new airport capacity should be provided in the South East and if so, how much; where new capacity should be located; and what measures should be taken to mitigate the environmental impacts of growth. On the question of where any new airport capacity should be located, the Department proposed the following options for Heathrow:

At Heathrow, the maximum use case does not provide any more capacity than the base case which already assumes the construction of Terminal 5. Neither maximum use nor the new runway option presented below assumes any alteration to operation in segregated mode on the existing runways or to the numbers of night flights.

In Stage 2 of the SERAS study, options for a single new runway (either 2000m or 4000m long) were considered. The Government has rejected the option of a new 4000m runway, because, while the benefits of short and long runways are comparable, the disbenefits of a long runway (particularly in terms of property demolition) were very much greater than for the 2000m runway.

The additional terminal capacity (beyond Terminal 5) which would be required to support a new short runway is assumed to be provided through reconfiguration of the Central Terminal Area (CTA) - Terminals 1, 2 and 3 - and the space between

²¹ DETR, [A new deal for transport: better for everyone](#) (Cm 3950), July 1998, paras 3.189-3.192

²² throughout this section the term ‘Department for Transport’ is used to refer to the various incarnations of that Department between 1997 and 2002 – the DETR and the DTLR

²³ DfT, [South East and East of England Regional Air Services Study \(SERAS\): Appraisal findings report](#), April 2002, p2

²⁴ the structure and most of the content of the second consultation document (and the separate summary of it) are essentially the same as the version published in 2002; for the purposes of this paper, all references are to the second version: [The Future Development of Air Transport in the UK: South East, Second edition](#), February 2003

the existing runways at Heathrow and to the south of the airport site near Terminal 4.²⁵

Stakeholder responses to the consultation process were mixed. While organisations representing the aviation industry were keen to emphasise the material and commercial benefits to significant airport expansion in the South East,²⁶ conservation and consumer groups contested the need for air transport expansion at all.²⁷

The December 2003 White Paper, *The Future of Air Transport*, offered support for the development of Heathrow, including a new runway, provided that specified environmental limits could be met. The White Paper stated that demand for Heathrow was 'very strong' and would always like to be 'far in excess' of capacity due to its 'unique' position as the UK's only major hub airport, competing with international airports such as Amsterdam-Schiphol, Frankfurt and Paris-Charles de Gaulle rather than other UK airports. The Government stated in the White Paper that it believed there to be a 'strong case' for seeking to secure the 'large economic benefits' achievable through the addition of a third runway at Heathrow.

Overall, the White Paper stated that Government supported a third runway at Heathrow, to be built **after** a second runway at Stansted, probably in the period 2015-2020. BAA stated in their submission to the consultation preceding the White Paper that a third runway would require the building of a sixth terminal outside the current airport boundary. With that in mind, the White Paper recommended that BAA carry out work on further proposals for terminal capacity and an appraisal of the potential impacts, on the basis of which a further consultation would be required.

The White Paper also recommended that airport operators should maintain a 'master plan' document detailing development proposals. It went on to state: "We will expect airport operators to produce master plans or, where appropriate, to update existing master plans to take account of the conclusions on future development set out in this White Paper".²⁸ The Department produced a guidance document for the development of master plans in July 2004.²⁹ BAA Heathrow published its interim master plan in June 2005. The press notice accompanying the draft plan outlined the airport's approach in two main areas. On developing Heathrow within its existing limits:

Heathrow is not a new, modern purpose-built airport – it is an airport which constantly needs to renew and reinvent itself. The opening of Terminal 5 in 2008 presents BAA Heathrow with an opportunity to help airlines and alliances relocate, and at the same time redevelop and improve the rest of the airport. Commercial agreements have already been signed with BA, Star Alliance and Virgin and other talks are progressing well.

²⁵ op cit., *The Future Development of Air Transport*, paras 7.4-7.6

²⁶ see, for example: [BAA, *Responsible Growth: BAA's response to the Government's consultation on the future of air transport*](#), May 2003

²⁷ see, for example: TCPA, *Response to the Department for Transport Consultation: The Future Development of Air Transport in the South East (2nd Edition 2003)*, June 2003; [The response of HACAN ClearSkies to the The Future of Air Transport in the United Kingdom: South East Consultation Document](#), November 2002; and: London Sustainable Development Commission, [Response to the Government's consultation on the future of air transport in the UK - South East](#), June 2003

²⁸ DfT, [The Future of Air Transport](#) (Cm 6046), December 2003, p141

²⁹ DfT, [Guidance on the Preparation of Airport Master Plans](#), July 2004

Modernising Heathrow's facilities is already underway. There is already a major programme of works underway. In May, a £22m extension to Terminal 1 International Departure Lounge opened. Other major projects include the £100m redevelopment of Terminal 3's Pier 6 to accommodate the A380.³⁰

And the addition of a third runway:

Faced with strong passenger demand across the South East, now and in the future, the White Paper recommends that plans should be brought forward to create additional runway capacity, first for a new runway at Stansted and then for further runway development at Heathrow, subject to stringent environmental conditions being met.

The White Paper notes Heathrow's unique role as a major network hub airport and the important benefits it brings to the local and national economies. It also recognises the strong economic case for additional runway capacity and acknowledges the case for further facilities – in the form of satellite buildings or a terminal - to support a third runway.

The government is currently carrying out studies on the feasibility of additional runway capacity at Heathrow and will report back towards the end of 2006. In the meantime, Heathrow has published this plan to provide a framework with which to consult with all of its stakeholders, including the local communities. The plan contains a map in response to the White Paper's request that a boundary for the development of a third runway should be identified and safeguarded. As any potential development is still years away, BAA Heathrow has included a map which is an amalgamation of the various boundaries previously published. Depending on the final scheme, any potential development could affect up to 700 houses, as previously mentioned in BAA's 2003 Responsible Growth. BAA Heathrow will shortly be publishing property blight schemes to assist those homes which may be blighted by these plans.³¹

In December 2006 the Department published its progress report on the White Paper. The paper re-cast the debate about air travel within the context of the Government's new emphasis on climate change and environmental impacts, brought about by the publication of the *Stern Review on the Economics of Climate Change*, published in October 2006. Aside from this emphasis on climate change and impacts on the local environment, the paper also set out again the economic benefits of air travel and summarised progress that had been made on the White Paper since December 2003. On Heathrow it said:

The White Paper recognised the importance of Heathrow to the national economy and its unique role in the UK as a major hub airport. Heathrow is the world's busiest international airport. It accounts for almost 30 per cent of all passengers from UK airports and directly or indirectly supports 100,000 jobs. In 2005, over 35 per cent of Heathrow's passengers were business travellers, directly supporting the international competitiveness of London and the wider economy. Fifty-five per cent by volume of all air freight movements come through Heathrow. London First, a business organisation whose members include many major UK companies, has

³⁰ BAA Heathrow press notice, "[Transforming Heathrow](#)", 6 June 2005

³¹ *ibid.*, the draft plan is available on the [BAA website](#) [warning: large document]

highlighted Heathrow as 'vital for London's economic competitiveness and attractiveness to international investment'.

The Government continues to support the development of a third runway at Heathrow, as soon as it is possible to meet the stringent environmental limits set in the White Paper, taking account of the mitigation measures needed to allow this to happen.

Demand at Heathrow is now far in excess of runway capacity, and over the last five years passenger growth at Heathrow was just 5 per cent compared to 27 per cent at UK airports overall. Heathrow is in an increasingly uncompetitive position in relation to other major European airports. Although it handles more passengers per year than any other European airport, it has less runway capacity than competing major European hub airports...

As a result, Heathrow's route network is now largely static. Without additional runway capacity, Heathrow's competitive position will diminish to the disadvantage of the UK economy and to the advantage of continental hub airports which are continuing to grow.

Increasing capacity at Heathrow would have a higher economic value than at any other UK airport, and adding a short third runway would be worth over £5 billion in net present value terms. But the economic benefits of expansion must be weighed against environmental disadvantages - both climate change emissions and the local impacts on noise and air quality. The Government continues to support the development of a third runway so that the benefits of expansion might be realised, but only if we can be confident of meeting the strict environmental conditions set in the White Paper.

- No net increase in the size of the area of the 57 dBA Leq noise contour beyond its 2002 position (127 km²). The Government is committed to preventing deterioration in the noise climate.
- Compliance of any future development at Heathrow with EU air quality limits, including nitrogen dioxide (NO₂), applicable from 2010. This will require measures to reduce emissions from aviation and other sources, including road traffic, which is a significant contributor.
- Provision of improved public transport access.³²

2. Consultation on Heathrow expansion, 2007

On 22 November 2007 the Government published its consultation document on the future of Heathrow, and, in particular, whether a third runway should be built and whether mixed mode should be introduced. All of the documents pertaining to the consultation, which closed in February 2008, are available on the Department for Transport's website: <http://collections.europarchive.org/tna/20090304190839/http://www.dft.gov.uk/pgr/aviation/heathrowconsultations/heathrowdecision/decisiondocument/>

The issues outlined in the document are introduced as follows:

³² DfT, [The future of air transport progress report](#) (Cm 6977), December 2006, paras 5.16-5.20

The [2003 aviation] White Paper made clear that, given the strong economic benefits, the Government supported the further development of Heathrow, by adding a third runway and exploring the scope for making greater use of the existing two runways.

This support was conditional on:

- a noise limit - no increase in the size of the area significantly affected by aircraft noise (as measured by the 57dBA Leq noise contour in 2002);
- air quality limits - being confident of meeting European air quality limits around the airport, in particular for nitrogen dioxide (NO₂) which is the most critical local pollutant around Heathrow; and
- improving public transport access to the airport.

The Department for Transport's Project for the Sustainable Development of Heathrow was set up to consider whether, and how, these conditions might be met. As envisaged in the White Paper, this work has drawn on a wide range of expertise, including BAA as the airport operator, the Highways Agency, the Civil Aviation Authority (CAA) and NATS, to review the science, develop options and model their impacts. The consultation document presents the results of this work. It describes in detail how Heathrow operates today and sets out forecast future demand. It presents a revised proposal by BAA for adding a third runway north of the A4 (2,200 metres (m) operational length compared with the original 2,000m proposal), with associated passenger terminal facilities and access to the road and rail networks. This could potentially enable the airport to handle around 700,000 air transport movements (ATMs) a year, nearly 50 per cent more than today.

The consultation also presents proposals for introducing mixed mode on the existing two runways, either with or without additional ATMs, as an interim measure ahead of a third runway. Runway alternation would have to cease during mixed mode operations. An important aim of this consultation is to get a better understanding of the importance attached by local communities to the benefits of runway alternation, and the time of day it is of most value, so that this can be taken into account in the decision-making process; and to understand the wider benefits of the various options.

Adding a third runway at Heathrow could also potentially provide capacity to increase movements in the night period. However, night flights at Heathrow are strictly controlled between 2300 and 0700, including limits on the permitted numbers and total amount of noise in the night quota period (2330 to 0600). In view of this, nothing in this consultation will affect the continued operation of the current night flying restrictions which were put in place in 2006 and extend until they next review in 2012.³³

At the same time, the Government published a number of technical reports on economic and environmental matters surrounding Heathrow and its possible expansion; these are also available on the website:

<http://www.dft.gov.uk/consultations/closed/heathrowconsultation/technicalreports/>

³³ DfT, [Adding capacity at Heathrow Airport: consultation document](#), 22 November 2007, pp8-9

Shortly after the consultation was published, anti-expansion groups, lead by HACAN Clearskies, stated that they would challenge the building of a third runway on economic as well as environmental grounds.³⁴ There was also a great deal of political controversy about the consultation, with some accusing the Government of 'colluding' with BAA. For example, in March 2008 *The Sunday Times* ran a story, based on documents obtained under the Freedom of Information Act, to the effect that "the airports operator BAA colluded with government officials to "fix" the evidence in favour of a new third runway at Heathrow".³⁵ The story continued:

Documents seen by The Sunday Times reveal that BAA executives prevented the use of data in the consultation document which showed that the expansion would cause unlawful levels of pollution and extra noise.

Instead, they gave civil servants amended data that showed the anticipated 230,000 extra flights a year at Heathrow would have a minimal impact on noise and pollution levels.

A leaked report shows the government's own watchdog, the Environment Agency, has now criticised the Department for Transport (DfT) consultation document into the third runway as flawed and incomplete.

The agency says the science is not "sufficiently robust" to sustain the document's backing for a third runway and that it has neglected to consider the health impact of the extra pollution, which could increase the risk of serious illness and deaths in the area.

One official who was involved in "Project Heathrow" -the DfT unit that researched the environmental impact of the runway -said: "It's a classic case of reverse engineering. They knew exactly what results they wanted and fixed the inputs to get there. It's appalling."

Previously unpublished documents obtained under freedom of information laws show:

- BAA gave instructions to DfT officials on how to "strip out" data that indicated key environmental targets would be breached by the airport.
- The airports operator repeatedly selected alternative data used for the consultation to ensure that the final results showed a negligible impact on noise and pollution.
- The DfT gave BAA unprecedented access to confidential papers and allowed the company to help to rewrite the consultation document.
- The final document significantly reduced the likely carbon emissions caused by the runway by not including incoming international flights.³⁶

The Government repeatedly stressed that this was not the case. For example, in April 2008 the Minister for Transport, Jim Fitzpatrick, told MPs:

³⁴ "Report attacks Heathrow expansion", *The Times*, 2 December 2007

³⁵ "Revealed: the plot to expand Heathrow", *The Sunday Times*, 9 March 2008

³⁶ *ibid.*; the documents in question are available from *The Times*' website as [FOI 1](#), [FOI 2](#), [FOI 3](#), [FOI 4](#) and [Doc 08-03-09](#)

The hon. Members for Lewes (Norman Baker) and for Chipping Barnet (Mrs. Villiers) made accusations of collusion, which we refute entirely. We refute the accusations that the Department has behaved improperly in its relations with BAA plc and in managing the consultation exercise.

The 2003 air transport White Paper made it absolutely clear that we expected the aircraft operator, working with the Civil Aviation Authority, NATS and the Government, to develop proposals to form the basis of consultation. It would not have been sensible, or indeed possible, to attempt this work without the technical and operational expertise of the operator.

I must also say that it is outrageous of my right hon. Friend the Member for Oldham, West and Royton (Mr. Meacher) to suggest that civil servants should be disciplined on the basis of an article in a newspaper.³⁷

And in November 2008 he said:

In respect of allegations of collusion with BAA, may I reiterate a point of which the hon. Gentleman is well aware? We were very clear in the 2003 White Paper that we would seek the assistance of the Civil Aviation Authority and NATS, as well as BAA, to ensure that we produced a consultation document that could be put to the public with confidence. It was also clear that it would have to comply with any regulations that we set down. The key word in the hon. Gentleman's comments is "compliance". BAA will have to comply with the requirements that will be set down if the third runway goes ahead.³⁸

3. Announcement on a third runway and a sixth terminal, 2009

On 15 January 2009 the Secretary of State for Transport, Geoff Hoon, announced the Government's support for a third runway and new terminal at Heathrow, conditional on environmental and air quality criteria being met and additional ground transport capacity being added:

This leaves the question of a third runway. Let me first explain my conclusions, in the light of the conditions on noise, air quality and surface access set out in the 2003 White Paper. In 1974, some 2 million people around Heathrow were affected by average levels of noise at or above 57 dB. By 2002, that number had reduced to 258,000 people as the result of significant improvements in aircraft technology. In the White Paper, the Government committed not to enlarge the area within which average noise exceeded 57 dB. In the light of all the evidence, including from the consultation, I have decided that this condition can be met, even with a third runway. Indeed, because newer aircraft are quieter, the numbers of people within the 57 dB contour by 2020 is expected to fall by a further 15,000 from 2002, even with more aircraft movements in 2020. And the number of people affected by higher levels of noise is expected to fall even more significantly: for example, a 68 per cent. reduction—more than 20,000 fewer people—in the number of those affected by noise averaging 66 dB and above.

³⁷ HC Deb 2 April 2008, cc880-881

³⁸ HC Deb 11 November 2008, c674

On air quality, the Government are committed to meeting our EU obligations. The relevant pollutant at Heathrow is nitrogen dioxide, for which the EU has set a 2010 target of an annual average of no more than 40 micrograms per cubic metre. As with most other major European economies, the UK does not yet fully comply with this limit, largely as a result of emissions from motor vehicles. The area around Heathrow is by no means the worst example in the country, and the limit is currently exceeded in a number of places in the UK, in most cases by more than near Heathrow. Meeting EU air quality targets is an issue that must to be addressed right across the United Kingdom, not simply around Heathrow airport. The European Commission has agreed that member states could be allowed an extension to 2015 if member states can show that they have plans in place to meet the targets. This presents a significant challenge, but I am committed to supporting the actions, mainly in relation to motor vehicle emissions, necessary to achieve it. Immediately around Heathrow, action will be necessary to ensure that we meet the air quality limits by 2015. Our forecasts predict that, in any event, we will be meeting the limits by 2020 even with airport expansion.

Usually these decisions would be taken on the basis of forward projections and modelling. To reinforce our commitments on noise and air quality, I have decided, however, that additional flights could be allowed only when the independent Civil Aviation Authority is satisfied, first, that the noise and air quality conditions have already been met—the air quality limit is already statutory, and we will also give the noise limits legal force—and secondly, that any additional capacity will not compromise the legal air quality and noise limits. We will give the CAA a new statutory environmental duty to ensure that it acts in the interests of the environment in addition to its existing obligations and duties, and that it follows guidance from myself and my right hon. Friends the Secretaries of State for the Environment, Food and Rural Affairs and for Energy and Climate Change. Moreover, in the event that air quality or noise limits were breached, the independent regulators would have a legal duty and the necessary powers to take the action—or require others to take it—needed to come back into compliance. In the case of noise, the matter would be for the CAA. In the case of air quality, where emissions from roads and rail around Heathrow also need to be considered, the Environment Agency will act as the enforcement body, with appropriate guidance from Ministers.

The third local condition for expansion for Heathrow was the provision of adequate public transport. Major improvements in rail access have already been announced, including increases in capacity on the Piccadilly line and the introduction of Crossrail services from 2017. This will provide a maximum capacity of 6,000 passengers per hour, which will be able to accommodate the estimated demand for rail access to a three-runway airport. The Government also welcome the lead being taken by BAA to promote the Airtrack project providing direct rail access to the airport at terminal 5 from the south and west. The Department will work with BAA and Network Rail to consider this and other schemes to improve connections from Heathrow to places such as Waterloo and Guildford, Reading and other stations on the Great Western main line.

Having considered all the evidence, I have decided that all three of the Government's conditions for supporting a third runway at Heathrow can be met. I can therefore confirm that an additional terminal and the slightly longer runway proposed in the consultation are the best way to maximise the efficiency of a larger airport. However, I want there to be a limit on the initial use of the third runway so that the increase in aircraft movements does not exceed 125,000 a

year rather than—at this stage—allowing the full additional 222,000 aircraft movements on which we consulted. I have also decided that any additional capacity available on the third runway will, after consultation, be subject to a new “green slot” principle to incentivise the use at Heathrow of the most modern aircraft, with further benefits for air quality and noise—and, indeed, carbon dioxide emissions.³⁹

The documentation published alongside the Secretary of State’s statement is available here: <http://www.dft.gov.uk/pgr/aviation/heathrowconsultations/heathrowdecision/>

a. *Mixed mode and the Cranford Agreement*

Heathrow could also be ‘expanded’ in terms of its usage by making changes to how runways are used and the direction of flight take offs and landings. At the moment LHR operates in ‘segregated mode’ – arriving aircraft are generally allocated to one runway and departing aircraft to the other. In addition, there is runway alternation on westerlies (explained below) – in which the use of the airport’s two runways is switched over at fixed periods so that noise from arriving aircraft is shared fairly between communities below the respective approach paths and provides for predictable periods of noise relief. ‘Mixed mode’ is, literally, the use of both runways for a mix of arrivals and departures. Full mixed mode could lead to up to an additional 60,000 movements per year. The 2007 consultation document explained:

Typically, a departure on each runway would be followed by an arrival on the same runway, and so on. Appropriate separation distances between aircraft would be maintained to ensure safe operation. Mixed mode is the approach adopted at all single runway airports in the UK and most multiple runway airports internationally.⁴⁰

The other relevant issue is westerly preference and the Cranford Agreement. Westerly preference was introduced because of concerns at the time about take-off noise. Westerly preference allows westerly landings even when there is a tailwind of up to five knots. This means the airport can continue to operate on westerlies for as long as possible, encouraging departures over the relatively lightly populated areas to the west of the airport. The Cranford Agreement is a general rule introduced in the 1950s that easterly departures should use the southern runway, rather than the northern. The reason for its introduction was to protect Cranford, then the nearest residential area to the airport, from the noise of departing aircraft when the airport is operating on easterlies. The 2007 consultation paper explains the impact of the Agreement at the moment:

At the time [the Agreement] was introduced, noise on take-off was widely regarded as the dominant noise issue. But the circumstances that led to the Cranford agreement have changed significantly since the 1950s. Technological developments mean that noise on take-off is much reduced, both because of quieter aircraft engines and improved performance, which means aircraft gain height more quickly.

³⁹ HC Deb 15 January 2009, cc357-358

⁴⁰ op cit., *Adding capacity at Heathrow Airport: consultation document*, para 3.91

Although the current procedure still benefits Cranford residents, it also means that there is no runway alternation during easterly operations; departures are normally from the southern runway, and arrivals mostly on the northern. As a result, Windsor and adjoining areas under the northern runway approach tracks get little relief from the noise of arriving aircraft, and communities to the east of the southern runway, such as Hatton and North Feltham, get little relief from departure noise.⁴¹

The Secretary of State announced in January 2009 that mixed mode will not go ahead, but the Cranford Agreement will be ended, permitting easterly take offs from the northern runway:

Two of the options would use the existing runways for both arrivals and take-offs, otherwise known as mixed mode. This would improve resilience, reduce delays and has the potential also to provide early additional capacity. It is clear from the consultation, however, that residents under the flight paths greatly value the present alternation of runway operations at around 3 pm, which gives them respite from overhead aircraft noise for at least eight hours a day. Having carefully considered the evidence, including from the consultation, I have decided not to proceed with mixed mode. I have also decided to extend the benefits of runway alternation to those affected by aircraft taking off and landing when the wind is blowing from the east. I will therefore end the Cranford agreement, which generally prohibits easterly take-offs on the northern runway. This will benefit the residents of Windsor and others to the west of the airport, and Hatton and north Feltham to the east. I support the continuation of the other operating procedures as set out in the consultation.⁴²

4. Responses to the consultation and the announcement

The Department for Transport received almost 70,000 responses to the 2007 Heathrow consultation document. A summary of these responses is available on the Department's website:

<http://collections.europarchive.org/tna/20090304190312/http://www.dft.gov.uk/pgr/aviation/heathrowconsultations/heathrowdecision/responses/>

In addition, individual responses can be viewed, by appointment, at the Department for Transport's offices until 10 April 2009:

As stated in the consultation document the responses to the Adding capacity at Heathrow airport consultation may be available for viewing at our offices in Westminster. If you wish to make an appointment to do this please call 0207 944 2071 or email heathrowconsultation@dft.gsi.gov.uk. You will need to supply your name and contact details to make the necessary arrangements. Responses may be viewed one person at a time between Monday to Friday inclusive from 10am

⁴¹ *ibid.*, paras 3.130-3.131

⁴² HC Deb 15 January 2009, c357; more information in: DfT, [Adding capacity at Heathrow: Decisions Following Consultation](#), January 2009, pp12-18

to 5pm until Friday 10 April 2009. You will need to bring valid photographic identification such as a passport or driving licence.⁴³

The views of the main players in the Heathrow debate – BAA, the airlines, environmental groups, local residents and businesses – are generally well known and will not be rehearsed in great detail here. BAA's response to the January 2009 announcement was as follows:

BAA's Chief Executive, Colin Matthews, has welcomed the government's decision to go ahead with a third runway at Heathrow.

"This decision opens the door to Heathrow becoming a truly world class hub airport, and to the UK maintaining the direct connections to the rest of the world on which our prosperity depends.

"Meeting the environmental targets will be demanding, but, whilst we have to study the detail in today's announcement, we are determined to work with the rest of the aviation industry to achieve them.

"We are also fully aware that today's decision will be a difficult one for many, particularly those residents who will be directly affected by it. We intend to work with the local community as much as possible as we go through the planning process."⁴⁴

Friends of the Earth said:

Friends of the Earth's Executive Director Andy Atkins said:

"Expanding Heathrow would shatter the Government's international reputation on climate change – and seriously threaten the UK's ability to meet its targets for cutting emissions.

"We need bold and urgent action to create a low-carbon economy, not more backing for the climate-wrecking activities of the aviation industry.

"The Government must rethink its approach to aviation and invest in cleaner alternatives such as fast rail travel."

Friends of the Earth is deeply concerned that the expansion of Heathrow and other British airports will make it extremely difficult for the UK to meet its legal requirement to cut greenhouse gas emissions by 80 per cent by 2050.⁴⁵

While FoE's objections to a third runway at LHR are primarily based on environmental concerns, it has also highlighted the 'broken promises' made by BAA as to whether it

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<http://collections.europarchive.org/tna/20090304190312/http://www.dft.gov.uk/pgr/aviation/heathrowconsultations/heathrowdecision/responses/>

⁴⁴ BAA press notice, "Government gives green light for third runway at Heathrow", 15 January 2009

⁴⁵ FoE press notice, "Heathrow: expansion will seriously threaten the UK's ability to tackle climate change", 14 January 2009: a briefing on [why the Government should say no to expanding Heathrow](#) is also available

would seek a third runway. These are often cited by opposition groups and date back largely to the inquiry into and hearings on Terminal 5 in the mid-1990s.⁴⁶

HACAN Clearskies, which opposes the expansion of Heathrow on grounds of local noise, air quality and environment issues, published the following statement on its website:

We have never felt so confident we can win. Yesterday's package has all the marks of being cobbled together at the last minute to head off a rebellion in the Cabinet and widespread discontent amongst Labour MPs. Few people take seriously the so-called environmental safeguards that have been put in place, far less the laughable attempt to call it a Green Heathrow. No, it is a Brown Heathrow bulldozed through a reluctant Cabinet by the Prime Minister. Mixed-mode has been dropped. Opposition to a 3rd runway is widespread and growing. The opposition political parties have all said that, if they win the next General Election, they will scrap the proposals. Because it will take several years for BAA to draw up plans for a 3rd runway, it will not be this Government but the next one which has the final say-so. This announcement is not defeat, but victory delayed.⁴⁷

London First, which represents London business, said:

The Government has today given the go-ahead for the third runway at Heathrow.

Baroness Jo Valentine, Chief Executive of London First, said:

"The decision on a third runway, with the accompanying announcement on investment in High Speed rail, is welcome. The continued support of London business will rest on changes to the way in which Heathrow is regulated and run. We need commitments to world class passenger service and environmental standards that business and Londoners have every right to expect. A proper working Heathrow is central to a proper working UK."⁴⁸

The 2M Group is an alliance of local authorities concerned at the environmental impact of Heathrow expansion on their communities.⁴⁹ Members "are not anti-Heathrow but feel passionately that the Government consistently fails to either acknowledge or assess the airport's full environmental impact".⁵⁰ The Group's response to the January 2009 announcement is not available, but it has published its response to the 2007 consultation paper, along with the individual submissions from Hillingdon, Hounslow, Richmond and Wandsworth. The Group response, dated 27 February 2008, begins:

⁴⁶ FoE, [Heathrow terminal 5 and runway 3 A chronology of worthless promises: 1993-2008](#), January 2009

⁴⁷ <http://www.hacan.org.uk/>

⁴⁸ London First press notice, "[Response to Government go-ahead for third runway at Heathrow](#)", 15 January 2009; the [conclusions of the organisation's November 2008 report on Heathrow](#) are also available

⁴⁹ the membership comprises the London Boroughs of Brent, Camden, Ealing, Greenwich, Hammersmith and Fulham, Harrow, Hillingdon, Hounslow, Islington, Kensington and Chelsea, Kingston, Lambeth, Lewisham, Merton, Richmond, Southwark, Sutton and Wandsworth, and the boroughs of Slough, Windsor and Maidenhead and South Bucks District Council

⁵⁰ http://www.wandsworth.gov.uk/info/200143/2m_group

This has been an inadequate consultation from the start. Member authorities have incurred considerable expense in commissioning specialist consultants to examine the data and arranging extensive local information exercises to make good the deficiencies of the Department for Transport's (DfT) own programme.

A number of our members have submitted their own responses to the consultation. None of us feels that our submissions are complete. We have all been hampered by the inadequacy of the information and the limited time allowed for analysis.

The central issue here is one of trust. No one believes that this expansion will be the last. Stephen Nelson of BAA even admitted as much at the London Assembly Environment Committee evidentiary sessions. He could not rule out a fourth runway in the future.

Our members are equally opposed to the third runway and the abandonment of runway alternation. No one believes that mixed mode is an interim measure. The history of Heathrow shows that once extra capacity is secured, it is never given up.⁵¹

a. Conservative Party and Mayor of London

In her response to the January 2009 announcement, the Conservative Shadow Transport Secretary, Theresa Villiers, said:

Let us be in no doubt: this is a bleak day for our environment and for all those of us who care about safeguarding it. Labour's plans for a third runway at Heathrow would inflict devastating damage on the environment and on quality of life, and the Conservatives will fight them every step of the way.⁵²

In a separate press notice Ms Villiers stated that an incoming Conservative Government would stop the further progress of a third runway.⁵³ During an Opposition Day debate on 28 January, the Conservative Party put down a motion which stated:

That this House urges the Government to rethink its plans for a third runway at Heathrow Airport and to give full consideration to alternative solutions; regrets the Government's heavy reliance on data supplied by BAA in assessing the case for expansion and notes the likely forthcoming break-up of BAA's ownership of three of 5 London's airports following the investigation by the Competition Commission; believes that the consultation paper Adding Capacity at Heathrow Airport was deeply flawed, as it paid insufficient regard to the costs of air and noise pollution in the surrounding areas and the commitment to curb carbon dioxide emissions to tackle climate change; regrets the fact that provisions to improve high-speed rail lines from 10 Heathrow to major cities have not been fully explored, along with the potential of other UK airports to handle more long-haul flights; and urges the

⁵¹ 2M Group, "[2M response to Ruth Kelly](#)", February 2008

⁵² HC Deb 15 January 2009, c360

⁵³ Conservative Party press notice, "[Third runway at Heathrow will be an environmental disaster](#)", 15 January 2009

Government to initiate a consultation on a new national planning policy statement on the theme of airports and high-speed rail.⁵⁴

Following that debate there was a vote on the Conservative motion; it was defeated by 19 votes: 297-278.⁵⁵

One of the most outspoken Conservative supporters of a third runway at LHR is the Conservative MP for Spelthorne, David Wilshire. He set out his views in an article for the Conservative Home website in October 2008.⁵⁶

The Conservative Mayor of London, Boris Johnson, has stated his opposition to a third runway:

This is a truly devastating blow for millions of Londoners whose lives are now set to be blighted by massive increases in air pollution and noise.

The Government has singularly failed to deliver a convincing case for expansion throughout or adequate solutions for the nightmare problems this would cause.

No amount of sweeteners in the shape of transport infrastructure will fundamentally alter the fact that the Government is hell-bent on exacerbating a planning error of the 1940s and that Heathrow is not fit for purpose.

I am deeply concerned that the proper processes of coming to this decision may not have been followed, and will support a legal challenge should this prove to be the case. To this end we are currently considering today's announcement in detail.⁵⁷

Mayor Johnson is investigating the viability of building a new London airport in the Thames Estuary as an alternative to the further expansion of Heathrow. There have been several proposals for such an airport over the years, details of which can be found in House of Commons Library note SN/BT/4920.⁵⁸

b. Liberal Democrats

Responding to the January 2009 announcement for the Liberal Democrats, Norman Baker expressed his Party's opposition to the plans:

The decision to proceed with the third runway is the worst environmental decision that the Government have made in 11 years. It drives a jumbo jet through their Climate Change Act 2008, on which the ink is barely dry. With a commitment to a reduction of 80 per cent. in carbon emissions, how can the Secretary of State and his colleagues possibly justify the construction of a new runway? It is also one of the worst political decisions in 11 years, on a par with that on the millennium dome. It has huge opposition in the Labour party, and has united the opposition in the House and in the country and destroyed the Government's green credentials. I

⁵⁴ HC Deb 28 January 2009, c299

⁵⁵ *ibid.*, c408

⁵⁶ <http://conservativehome.blogs.com/platform/2008/10/david-wilshire.html>

⁵⁷ Mayor of London press notice, "[Statement from the Mayor on Heathrow expansion](#)", 15 January 2009

⁵⁸ available by calling the House of Commons Information office on 0207 219 4272

make it plain that the Liberal Democrat manifesto will include a commitment to reverse the decision.⁵⁹

During the debate in January 2009, Mr Baker took up the environmental and regional concerns surrounding the proposals for further expansion for Heathrow:

I draw the House's attention to the article in *The Times* that has been referred to, and colleagues in the nationalist parties and in Northern Ireland need to be aware that, far from guaranteeing any extra traffic for Scotland, Wales and Northern Ireland, a third runway at Heathrow

“could bring expansion at all other airports to a halt.” (...)

I can assure the hon. Gentleman that there is no question of Heathrow ceasing to exist ... we want guarantees that slots and flights from places such as Belfast, the north of Scotland and so on will be protected, because they have to feed into Heathrow—there is no alternative—to get elsewhere outside the UK (...)

[W]e have long been concerned about the impact of aviation on climate change. That is the primary, but not the only, reason why we oppose a third runway at Heathrow. According to Government figures, aviation accounted for 13 per cent. of total UK climate change damage in 2005—that is all gases, not just CO₂. That takes account of departing flights only. If the calculation were based on return flights by UK citizens, the figure would be nearer 20 per cent., according to the Heathrow Association for the Control of Aircraft Noise. Emissions from air travel are due to rise by 83 per cent. from 2002 levels by 2020, and could amount to a quarter of the UK's carbon emissions by 2038 (...)

The Government have to realise that they will have to deliver on their climate change targets. They cannot have a target only for some Government to say, 20 years hence, “We cannot possibly meet it.” We must know now how we will meet it, and building a third runway at Heathrow does not help in any shape or form.⁶⁰

E. Surface access

At present one can access LHR using any of the following methods: London Underground, via the Piccadilly Line; Heathrow Express and Heathrow Connect from Paddington; a number of bus and coach services from London and other towns and cities; taxis and private hire cars; and the private car. Further expansion of Heathrow will lead, necessarily, to increased pressure on the ground transportation systems which will ferry passengers to and from the airport. LHR must also be connected to central London and to the rest of the UK and the continent. While this could be achieved with short haul and internal flights from the airport itself, environmental considerations have led to persistent calls to improve the public transport infrastructure to the airport.

Surface access to Heathrow has been an issue since the early years of the airport. For example, during an exchange in the House of Lords in March 1955 Earl Howe made a remark that has been frequently echoed since: “Is it not true to say ... that if the traffic

⁵⁹ HC Deb 15 January 2009, c363

⁶⁰ HC Deb 28 January 2009, cc325-327

goes on expanding at the present rate, the position in regard to Heathrow will become impossible in a few years' time? ... At the present, the air traveller can spend more time in a car than he spends in the air...".⁶¹ A *Guardian* editorial from 1964 gives a familiar account of the road approach to the airport:

... the thousands of travellers who arrive at near sonic speeds from the ends of the earth at London Airport must bear with the immense delays, the traffic jams and the frustrations of Hammersmith. True, there is the protracted evidence of roadwork activities and the promise of the flyover to serve as consolation that somehow, someday, the problem will have been tackled and something finally done. But will it be enough?⁶²

Back then, transport planners were not short of imaginative ideas to solve the Heathrow access problem. In the late 1950s there was discussion of supplementing the existing surface transport with a helicopter service, linking Heathrow, Gatwick and Southend;⁶³ and throughout the '50s and '60s there were calls for a monorail and even a 'hovercar' link operating on the Regents Canal.⁶⁴ Following much work in the 1960s, a 1970 report for the Ministry of Transport recommended extending the Piccadilly Line to LHR; the extension was opened in 1977.⁶⁵

Just before Terminal 4 opened in April 1986 and following the publication of the Conservative Government's 1985 airports White Paper, the Government commissioned Howard Humphreys and Partners to undertake a Heathrow surface access study. The report was published in June 1987 and the Government responded in July 1988. The outcome of the study was Government approval for a joint British Rail-BAA rail link project, which became the Heathrow Express. The Secretary of State for Transport, Paul Channon, also indicated that further work would be undertaken to look at better management of the M4/A4 corridor and there would be a review of access to LHR from the surrounding area and or orbital movement in South West London within the M25 between the A23 and A40.⁶⁶

In April 1995 the Secretary of State, Dr Brian Mawhinney, announced the formation of a high-level, inter-departmental group to examine the scope for improving rail and road surface transport to and between London's airports.⁶⁷ Airport Links Consultancy were appointed to undertake a study into surface links and to report to the inter-departmental group.⁶⁸ The report was published in September 1996 and the Government, while taking no action on the report, stated that "the Department of Transport will be discussing the ... report with interested parties in order to help clarify issues arising ... and to further

⁶¹ HL Deb 1 March 1955, cc590-591

⁶² "Flying into a bottleneck", *The Guardian*, 25 August 1964

⁶³ ""Inner circle" air service planned", *The Times*, 11 June 1958

⁶⁴ op cit., "Flying into a bottleneck"

⁶⁵ Ministry of Transport, *Report of a study of rail links with Heathrow Airport*, 1970, paras 51-52

⁶⁶ Department of Transport press notice, "Paul Channon announced new fast rail link to Heathrow" (PN 374), 20 July 1988; conclusions of the Howard Humphreys report appended to the notice [available from HC Library]

⁶⁷ Department of Transport press notice, "Mawhinney announces new initiatives for surface links to airports around London for 21st century" (PN 104), 3 April 1995; HC Deb 3 April 1995, cc1391-1404

⁶⁸ DoT press notice, "Consultants appointed to undertake London airports access study" (PN 266), 29 August 1995; terms of reference appended

stimulate wider discussion and interest in airport surface access possibilities”.⁶⁹ The letter accompanying the report, from the Minister for Transport in London, John Bowis, summarised the report’s key findings; those related to Heathrow were as follows:

LASAS [London Airports Surface Access Study] has been looking at surface access with reference to London’s main airports, that is: Heathrow, Gatwick, Luton, Stansted and London City Airports. The consultants first reviewed the extensive previous work on surface access options. Their analysis and evaluation work then led them through a filtering process, using a set of LASAS criteria drawn from the Study’s terms of reference,⁷⁰ to highlight shortlisted schemes which they assessed in some detail and four further “free-standing” schemes. These “free standing schemes” appear to meet the LASAS criteria but are already well developed and therefore beyond the scope of the Study. All the highlighted schemes are listed below. Schemes not found to meet the specific LASAS criteria may well be worth developing for other reasons and not being highlighted in LASAS should not be seen as a barrier to taking a scheme forward.

Shortlisted Schemes

- Rail link from Heathrow to the City via Thameslink; providing the possibility of a Heathrow-Gatwick link ...
- Rail link from Heathrow to Waterloo via Richmond and Staines and to Woking and Guildford (connection to the South West Main Line)
- Heathrow area traffic management and bus/coach schemes:
 - priority lanes on sections of the motorways adjacent to the airport
 - express coach terminal facilities at airport
 - improvements to local bus services
- Link between St Pancras and Euston – possibly shuttle bus or people mover; this would provide an enhanced connection between Heathrow and the Midlands and North, via West Coast Main Line

Free-Standing Schemes

- Heathrow Gateway Stations – proposed stations to the north and south of Heathrow, on the Great Western Main Line and the South Western Main Line respectively, which would be linked to the airport by frequent dedicated shuttle bus services (...)⁷¹

The 2002 consultation gave an overview of the potential impacts on the road and rail structure around Heathrow of a third runway.⁷² The 2003 White Paper, in indicating that the Government supported a third runway in principle, stated:

⁶⁹ DoT press notice, “Consultants’ study on London airports surface access published” (PN 289), 17 September 1996

⁷⁰ i.e. physical and operational feasibility; construction and operating costs and associated risks; passenger demand; financial and economic assessment; impact on existing train services and rail infrastructure; impact on the relief of congestion; effect on air travel demand; environmental assessment; financing mechanisms; institutional and regulatory arrangements; authorisation arrangements; and timetable

⁷¹ Airports Link Consultancy, *The London Airports Surface Access Study: Final report to the Steering Group*, September 1996, introductory letter [available from HC Library]

⁷² op cit., *The Future Development of Air Transport*, paras 7.10-7.19

Further expansion of Heathrow will place pressure on already congested road and rail networks. The Government has no plans for further motorway widening in this area beyond that which we announced in July 2003. The solution will need to be based on improvements to public transport, which is likely to require the airport operator spending several hundred million pounds on new rail infrastructure. The prospects for the introduction of some form of road user charging, either by means of charges to enter the airport or pricing across a wider area, should also be considered. The Government has already established a feasibility study to advise on practical options for a new system of road charging in the UK, which is expected to report in Summer 2004.⁷³

Alongside the 2007 consultation on the expansion of Heathrow, the Government published a technical report into surface access at the airport which examined in some detail:

- the models used for forecasting air passenger trips by mode, airport employee trips by mode, and non-airport road traffic;
- the assumptions made for forecasting, and forecasts of air passenger trips, airport employee trips and non-airport travel by road; and
- the air quality problems, the options for mitigation, and the better performing mitigation options.⁷⁴

As part of his announcement on a third runway in January 2009, the Secretary of State said:

Major improvements in rail access have already been announced, including increases in capacity on the Piccadilly line and the introduction of Crossrail services from 2017. This will provide a maximum capacity of 6,000 passengers per hour, which will be able to accommodate the estimated demand for rail access to a three-runway airport. The Government also welcome the lead being taken by BAA to promote the Airtrack project providing direct rail access to the airport at terminal 5 from the south and west. The Department will work with BAA and Network Rail to consider this and other schemes to improve connections from Heathrow to places such as Waterloo and Guildford, Reading and other stations on the Great Western main line.⁷⁵

The decision document accompanying the announcement went on:

On surface access, some questioned the absence of specific proposals particularly to address road congestion. The Department is clear that a detailed surface access strategy is not a prerequisite for a policy decision and would be a matter for the airport operator as part of a planning application in due course. The Department's analysis focused at a higher level on the capacity of the rail system to carry the extra airport users. Improvements are already in prospect with enhanced Piccadilly Line services from 2014 and Crossrail from 2017. The Secretary of State is satisfied with the Department's analysis that by 2020 there

⁷³ op cit., *The Future of Air Transport*, para 11.58; following the publication of the White Paper a Stakeholder Group on Surface Access to Heathrow Airport was set up; it last met in [February 2006](#)

⁷⁴ Project Heathrow/BAA, [Surface access report](#), November 2007, p2

⁷⁵ HC Deb 15 January 2009, c358

should be more than enough public transport capacity to meet peak hour demand for Heathrow. He welcomes the collaborative approach being followed by BAA in developing the AirTrack project and encourages all interested parties to participate in the consultation and the Transport and Works Act process, with a view to seeing that scheme implemented ahead of a third runway.

Looking to the future, the Department will work with the airport operator and Network Rail to consider schemes that provide better connections to the Great Western main line whilst maximising the effectiveness of scarce railway paths. The Department has also set up a new company, High Speed Two (HS2) Ltd, to advise Ministers on the feasibility and credibility of plans for a new line with specific route options and financing proposals. This work will include consideration of options for a new Heathrow International interchange station on the Great Western line, providing a direct 4-way interchange between the airport, the new north-south line, existing Great Western rail services and Crossrail into central London.

More generally, it will be for the airport operator to develop a surface access strategy for an expanded airport as part of a comprehensive transport assessment ahead of any planning application. This will include working with the Highways Agency and local authorities, as necessary, to identify any demand management measures needed to address road traffic congestion around the airport.⁷⁶

a. High speed rail

The Government has tended to have a cool attitude towards a high speed rail link between London and the North of England, and Scotland. Ministers have argued in the past that the passenger need and environmental cases do not stack up, though the question of finance might also be a factor.⁷⁷ However, more recently the new Secretary of State for Transport, Geoff Hoon, has indicated a thawing of the Government's views on building a north-south high speed line. As stated above, the Government has now decided to establish a new company charged with advising Ministers on the potential for a high speed line connecting Heathrow with the North of England and Scotland. The company will also consider options for a 'Heathrow International' station on the Great Western main line with an interchange for Crossrail. The company is expected to report on these issues by the end of 2009.⁷⁸

There has been a great deal of work done on high speed rail which broadly comes out in favour of such a project;⁷⁹ in addition, the Conservatives, the Liberal Democrats and the SNP Government in Scotland broadly support high speed routes.⁸⁰

⁷⁶ DfT, [Adding capacity at Heathrow: decisions following consultation](#), January 2009, paras 56-58

⁷⁷ see, e.g. the evidence of the then Railways Minister, Tom Harris, to the Transport Committee, on 19 March 2008: [Delivering a sustainable railway: a 30 year strategy for the railways?](#) (tenth report of session 2007-08), HC 219, 16 July 2008, Qq810-814

⁷⁸ DfT, [Britain's transport infrastructure: High Speed Two](#), January 2009, paras 61-65

⁷⁹ e.g. CfIT, [High Speed Rail](#), February 2004; Atkins for the SRA, [High speed line study: summary report](#), 2004; ICE, [The missing link – a report on high speed rail links in the UK](#), 2005; Greengauge 21, [Manifesto: the high speed rail initiative](#), 2006; Steer Davies Gleave for the Northern Way, [North South Connections](#), August 2007; and Atkins, [Because transport matters: high speed rail](#), March 2008

b. Crossrail

Crossrail is the plan to integrate the mainline railways to the east and west of London through the construction of two tunnels beneath central London from Paddington to Liverpool Street. The *Crossrail Act 2008* received Royal Assent on 22 July 2008. The estimated cost of the project is £15.9 billion.⁸¹

In the Second Reading debate on the *Crossrail Bill* in July 2005, the then Secretary of State for Transport, Alistair Darling, gave assurances about how the various public transport routes being developed for Heathrow would integrate:

... the Government and BAA, which owns Heathrow, have had many discussions about how Crossrail, Heathrow Express and Airtrack will tie in. Those discussions will continue. The current intention is that Crossrail trains will run to terminal 4, with the Heathrow Express running to terminal 5—obviously, both will call at terminals 1, 2 and 3. The current Airtrack proposal is that it will be able to come into terminal 5, but those proposals are not especially advanced at present, so that has not yet been finalised.

Given the history of the railways, some fragmentation is inevitable, although that is not all to do with what happened 10 years ago. BAA built its own railway as a separate entity from the main railway network. However, Heathrow Express runs perfectly sensibly and well with the existing network, so Crossrail can do exactly the same thing. My specific answer to the hon. Gentleman's point is that BAA and the Department are having extremely useful discussions. The intention is that Crossrail will go to terminal 4, so it will not squeeze out developments at terminal 5.⁸²

Because of the anticipated benefits to LHR from Crossrail, BAA was asked to make a financial contribution towards the cost of constructing the line. Central Government (i.e. the taxpayer), Crossrail users and London businesses are each expected to pay roughly a third of the cost of constructing the line, with BAA coming in the third category.⁸³ As the credit crunch began squeezing company profits and expenditure, questions were raised about the viability of the contributions from business. For example, in August 2008 the *Evening Standard* reported:

Airports operator BAA is refusing to publicly commit a specific sum to the cross-London rail link despite being expected to put in around £250 million.

Concerns are also growing that City chiefs will struggle to raise a further £150 million from London businesses now hit by the economic downturn.

Experts are warning that the funding agreement could unravel, delaying the long-awaited scheme for up to five years.

⁸⁰ [Theresa Villiers MP speech to the Conservative Party Conference](#), 29 September 2008; Liberal Democrats, *Fast track Britain: Building a transport system for the 21st century (policy paper 85)*, para 2.1.5; *SNP Election Manifesto 2007*, p26

⁸¹ HL Deb 10 December 2007, c3WA

⁸² HC Deb 19 July 2005, c1133

⁸³ for full details, see: DfT/TfL, [Crossrail: Heads of Terms](#), November 2007

Failure to raise funds from the private sector could lead to the Treasury dragging its feet over releasing billions for the project. But the Department for Transport denied the funding package would be revised (...)

Sir Peter Hall, professor of planning at University College London, said he was stunned that BAA had not yet agreed how much it was putting in. He said: 'These deals have a habit of unravelling.' BAA said it was 'working with' the Department for Transport and Crossrail on a final amount.

THE PLEDGES AND THE PROBLEMS

1. BAA

Amount due: Undisclosed but believed to be £250 million.

Possible problems:

BAA says it will contribute but has not yet signed on the dotted line. The airport giant is sufficiently large to weather the economic storm being felt by the aviation industry but its reluctance to commit a sum to the project is raising eyebrows.⁸⁴

The uncertainty over the BAA contribution was ended in November 2008 when the Department for Transport announced that BAA had agreed to find a contribution of £230 million.⁸⁵ Despite reports that the BAA contribution might be closer to £250 million (see above), the Department for Transport "stressed that the £230 million matched expectations".⁸⁶

General information can be found on the Crossrail website: <http://www.crossrail.co.uk/>.

c. AirTrack

AirTrack is a proposal to create a new direct rail link between Heathrow and the South West Trains suburban rail network to the south and west of the airport. AirTrack would comprise three new services to Heathrow Terminal 5, via Staines: from London Waterloo via Richmond, Guildford via Woking and Reading via Bracknell, with stops at selected stations on each route. This scheme is not linked to plans for a Third Runway.

Estimates resulting from work previously undertaken on behalf of the AirTrack Forum and DfT/Railtrack show an estimated cost for the scheme of between £350 and 400 million. In Autumn 2006, BAA announced that it would provide the funding for Heathrow Airport Ltd. to promote a Transport and Works Order for the AirTrack scheme. The Order would include powers to construct and operate the railway and to acquire the necessary land and associated planning consents. The theoretical timetable given on the AirTrack website is for a Public Inquiry in 2009 and, if approval is obtained, and a

⁸⁴ "Crossrail backers raise doubts over financing", *Evening Standard*, 7 August 2008

⁸⁵ DfT press notice, "[Major boost for Crossrail as BAA agree £230m funding](#)", 4 November 2008

⁸⁶ "BAA commits to Crossrail with £230m funding package", *Evening Standard*, 4 November 2008

suitable funding package agreed, construction could commence in 2010-11, with completion by 2013-14.⁸⁷

Further information can be found on the BAA Heathrow 'transformation' pages:

<http://www.heathrowairport.com/portal/site/heathrow/menuitem.2ea84de4d9bc8a0ca4b12871120103a0/>

II Environmental Issues

This section gives an update on environmental debate relating to the expansion of Heathrow airport. For more general background on the issue of aviation and climate change please see Library Paper 08/08 [Aviation and Climate Change](#) published in January 2008.

A. 2007 Consultation

The 2003 White Paper, *The Future of Air Transport* set out the Government's policy and guidance on airport and runway expansion and included support for a new runway at Heathrow.⁸⁸ Following this, on 22 November 2007, the DfT published a consultation on *Adding Capacity at Heathrow Airport* setting out several scenarios for growth.⁸⁹ The consultation also set out how the Government intended to focus on carbon trading to address climate change concerns:

Our approach is entirely consistent with the Stern Review (The Economics of Climate Change) and the Eddington Transport Study. Stern recommended that the best way to tackle the complex pattern of carbon emissions is to ensure that each activity which produces carbon is priced in a way that reflects its true cost to society, and to the environment. Eddington is equally clear that seeking artificially to constrain the natural growth of aviation, once carbon pricing is fully in place, would pose a significant cost to the UK economy, with no additional environmental benefit. Referring specifically to Heathrow, Eddington stated that "even once users pay the full environmental costs of their journeys, there will remain a strong economic case for additional runway capacity".⁹⁰

There has been strong opposition to the expansion of Heathrow on environmental grounds. Opponents are concerned about the impact of increased flights on noise and air pollution levels in surrounding areas and the impacts of increased greenhouse gas emissions on climate change. Opposition was summarised by the Heathrow Association for the Control of Aircraft Noise (HACAN) as follows on its website:

Residents' campaign groups have been joined by 21 local authorities, national campaign groups such as Greenpeace, politicians from all the political parties and environmentalists from across the country. Direct action activists from Plane Stupid climbed on to the roof of the Houses of Parliament to protest against Heathrow expansion.

⁸⁷ http://airtrack.org/airtrack_planning.htm

⁸⁸ DfT, *The Future of Air Transport*, Cm 6046, December 2003

⁸⁹ DfT, [Adding Capacity at Heathrow Airport](#), 22 November 2007

⁹⁰ DfT, [Adding Capacity at Heathrow Airport](#), summary, 22 November 2007, p7

The Conservative Party has said it does not support the expansion plans. The Liberal Democrats have promised to build no more runways in the South East. The Green Party and Respect are firmly opposed. All the main candidates for Mayor of London came out against.⁹¹

Hounslow Council, a member of the 2M group, expressed opposition on the following grounds:

- The Council totally opposes the Government's policy of airport expansion pertaining to Heathrow. The Council believes that Heathrow has reached the limits of sustainability and any expansion through mixed mode and a third runway will have severe and unacceptable impacts on the people of Hounslow, particularly in the form of noise and pollution.
- 96% of residents who have contacted the Council regarding this matter are against the Government's proposals.
- After considering this consultation, the Council does not agree with the Government's view that it is possible to introduce mixed mode operation or develop a third runway at Heathrow, within the specified environmental limits.
- The Council does not agree with the Government's view that the residents of Cranford should suffer increased levels of aircraft noise so that those further away from Heathrow benefit.⁹²

The response from Hillingdon Council, also part of the 2M group, set out some of the concerns. In view of the limited time allowed for responses it commissioned a review of the technical information on local air quality provided in the consultation. This concluded that:

- Key recommendations from the Air Quality Technical Panels work have not been taken forward in the work carried out in this consultation;
- The air quality model is under-predicting and the predicted improvement trends in air quality concentrations are not substantiated with scientific fact;
- Assessments into the uncertainties and sensitivities into the future have not been addressed and key inputs provided by the airport operator and other stakeholders have been inadequately independently audited;
- The assumption of acquiring a derogation could potentially be against EU law;
- There is no evidence presented to suggest the Government can be confident in the air quality modelling results.⁹³

These concerns about the documents used in the consultation echo concerns highlighted in the Sunday Times articles referred to earlier (see page 22 above) as to how DfT officials and BAA representatives arrived at figures used in the consultation.

The Council went onto set out its opposition on the grounds of climate change impacts:

⁹¹ HACAN Clearskies, [Heathrow has been in the headlines all this year](#), December 2008

⁹² Hounslow Council Consultation Response, [2M Website](#), [on 2 February 2009]

⁹³ Hillingdon Council Consultation Response, [2M Website](#), [on 2 February 2009]

The climate change impacts associated with the options for expansion are given little regard despite the Government's recent publication 'Planning for Climate Change'. A third runway is estimated to produce approximately 3.0million tonnes of carbon a year and although the increase is acknowledged in the consultation report there are no control measures suggested as to how this will be mitigated or addressed. The Government states that it is "committed to ensuring that aviation reflects the full costs of its climate change emissions" however this statement is meaningless given that there are no policies in place to ensure this is the case. The Government refer to the inclusion of aviation in the EU emissions trading scheme (EU ETS) as a means of addressing the climate change impacts but there are no agreements for this in place and negotiations are still underway in Europe, suggesting that implementation is still some way in the future. In addition, the EU ETS only covers carbon dioxide emissions and it is widely accepted that aviation creates other non-CO2 climate change emissions, which contribute to global warming. If aviation is included in the EU ETS in the future, these additional emissions will still not be accounted for and addressed.

For the above reasons, Hillingdon believe that the Government have not demonstrated any commitment to addressing the climate change impacts associated with expansion at Heathrow. The only policy the document refers to (EU ETS) is a) not in place, and b) will not address the full range of climate change emissions associated with aviation.⁹⁴

The Environment Agency (EA), England's environmental regulator, also expressed concerns about the proposals:

We also question whether the economic analysis of options for Heathrow is robust. First we wonder to what extent the analysis has taken account of the other elements of the ATWP preferred strategy for South East airports (e.g. a new runway at Stansted), and to what extent these elements may lead to the displacement of any of the identified benefits of expanding Heathrow. Secondly, we are concerned that the greenhouse gas-related costs of all three options for Heathrow (all in the area of £5bn present value) represent a very large proportion of the identified Net Present Value of the options. Given that the greenhouse gas costs must be highly uncertain, it is notable and worrying that a doubling of these costs would more or less eliminate the stated net benefit of expanding Heathrow. Thirdly, we note that the impacts of worsening air quality (even within the identified limits) from expanding Heathrow are not yet monetised, and we urge DfT to complete this analysis as a priority since this may affect the overall economics of the options, given the potential for increased morbidity and mortality over a dense local population.⁹⁵

The consultation closed on 27 February 2008. However, the Government did not announce its decision that it intends to allow a third runway to be built at Heathrow until 15 January 2009. There were press reports of concerns from several members of the Cabinet, which were assuaged by concessions on environmental safeguards.⁹⁶

⁹⁴ *ibid*

⁹⁵ Environment Agency, [Environment Agency Thames Region response to the Department for Transport's consultation: Adding capacity at Heathrow](#), 22 November 2007

⁹⁶ 'Heathrow gets third runway in £9bn deal; Extra capacity on condition of lower emissions Heathrow expanded with third runway in £9bn deal', *Times*, 15 January 2009.

1. Local air quality standards

In addition to greenhouse gas production, aviation also impacts on air quality in the areas surrounding airports. On this matter the Civil Aviation Authority website states:

The impact of the aviation industry on local air quality, especially in the vicinity of airports, has long been recognised. The pollutants of concern are the emissions of nitrogen oxides, carbon monoxide, hydrocarbons and soot. Emissions limits from aircraft engine exhausts have been defined for these pollutants by the International Civil Aviation Organisation (ICAO), although the limits only apply during the Landing Take-Off (LTO) cycle. In addition to aircraft emissions, local air quality is further compromised by pollution from motor vehicles along extensive road networks that provide access to airports.⁹⁷

The DfT 2005 report, *Valuing the External Costs of Aviation*,⁹⁸ sets out the damage poor local air quality can have on human health and the environment:

Health impacts include both mortality and morbidity effects while environmental impacts range from effects on crops, forest damage, damages to buildings and materials, to reduced visibility and effects on ecosystems.

[...] Based on advice from the Committee on the Medical Effects of Air Pollutants (COMEAP), only a limited number of health effects could be considered to have sufficiently robust evidence to allow quantification. These health effects included deaths brought forward (acute mortality) and respiratory hospital admissions. There is also emerging evidence of the effects of long-term exposure to air pollutants, notably particles, which would be much larger than the effect of short-term exposures considered up to now.⁹⁹

The 2003 Aviation White Paper describes what is being done nationally by the Government to limit emissions affecting local air quality:

There are mandatory EU limits for levels of these pollutants [nitrogen dioxide (NO₂) and particulates (PM₁₀)] in the air, irrespective of the source of the emissions.^[100] These limits come into effect in 2005 for particulates and 2010 for NO₂. We are committed to meeting these standards, and it is clear that major new airport development could not proceed if there was evidence that this would likely result in breaches of the air quality limits. The Government has also set national objectives in the Air Quality Strategy. These targets have a different legal status from the EU limit values, but they form part of a joint DfT/Defra Public Service Agreement target and they will help underpin decisions on the future development of aviation in the UK.

Compliance with mandatory air quality standards is an issue that extends beyond the air transport sector. But we must make significant progress in reducing the

⁹⁷ Civil Aviation Authority website, [Emissions section](#) [on 3 February 2009]

⁹⁸ DfT, [Valuing the external costs of aviation](#), December 2005

⁹⁹ DfT, [Valuing the external costs of aviation](#), December 2005, “noise” section

¹⁰⁰ Council Directive 96/62/EC, Implemented into law by *The Air Quality Limit Values Regulations 2003*, SI no 2121 and the *Air Quality Standards Regulations 2007* SI no 64

expected impacts of airports on local air quality over the next six years and beyond if the mandatory EU limits are to be fully met. This will be particularly challenging at very busy airports served and surrounded by high levels of road traffic. (Clearly measures will also be required to reduce emissions from vehicles.)¹⁰¹

The December 2006 *Future for Air Transport progress report* gave an update of the Government's work to improve local air quality around airports:

The *Civil Aviation Act 2006* provides powers for all airports to introduce charges that reflect the pollution generated by each aircraft type, in the way that Heathrow and Gatwick already do. We are also using UK experience to help prepare guidance in ICAO on the introduction and use of such charges to address local air quality concerns.

Action by industry is also playing a key role in making progress to improve aircraft emissions. New engine developments emit lower NOx levels than previous engines. International standards have tightened on NOx emissions over the years. Industry has a target by 2020 to reduce NOx emissions by 80 per cent compared to aircraft in production in 2000.¹⁰²

A report by the Aviation Environment Federation in February 2006, *Emissions: Impossible: An assessment of the noise and air pollution problems at Heathrow airport and the measures proposed to tackle them*, examined the current levels of local emissions at Heathrow airport and how these might increase in line with the proposal to build a third runway at the airport. The report concluded that Heathrow might already be in breach of Directive 96/62/EC on air quality, depending on how the emissions were calculated and on how the Directive was interpreted. Its conclusion was that proceeding with the proposed expansion would be "unlawful":

The airport is already breaching the EU and UK legal limit for nitrogen dioxide; we argue here that this makes the present steady growth of the airport unlawful, even before further expansion is considered. To comply with its statutory duties, the Government should restrict the number of flights each year to the level at which it can be confident that air pollution limits will not be breached.¹⁰³

The new air quality directive brings together existing requirements on limits and targets for a range of air pollutants such as sulphur dioxide, nitrogen oxides, particulate matter (PM10), carbon monoxide, ozone, benzene, lead, and polyaromatic hydrocarbons and adds a new annual PM2.5 target of 25 micrograms/m³, to be met where possible in 2010, and a limit set at the same level, to be attained everywhere by 2015.¹⁰⁴

Under the directive Member States are required to reduce exposure to PM_{2.5} in urban areas by an average of 20% by 2020 based on 2010 levels. It obliges them

¹⁰¹ DfT, *The Future of Air Transport*, Cm 6046, December 2003, p37

¹⁰² DfT, *The Future of Air Transport Progress Report*, December 2006 p25-26

¹⁰³ Aviation Environment Federation, [*Emissions: Impossible: An assessment of the noise and air pollution problems at Heathrow airport and the measures proposed to tackle them*](#), February 2006 p19

¹⁰⁴ The notation PM10 is used to describe particles of 10 micrometers or less and PM2.5 represents particles less than 2.5 micrometers in diameter.

to bring exposure levels below 20 micrograms/m³ by 2015 in these areas. Throughout their territory Member States will need to respect the PM_{2.5} limit value set at 25 micrograms/m³. This value must be achieved by 2015 or, where possible, already by 2010.

[...]

The deadlines for complying with the PM10 standards can be postponed for three years after the directive's entry into force (mid-2011) or by a maximum period of five years for nitrogen dioxide and benzene (2010-2015) provided that the relevant EU legislation such as industrial pollution prevention and control is fully implemented, and that all appropriate abatement measures are being taken. The directive provides a list of measures that need to be considered.¹⁰⁵

In regard to local air quality, the 2007 consultation paper suggested that Heathrow could support expansion within the EU air quality limits:

The Government believes that, on the basis of improved modelling following the air quality technical panel work reported in July 2006, and with the benefit of substantial reductions in emissions expected over the next decade or so, a short third runway [...] could be added at Heathrow by around 2020 and EU air quality limits for PM₁₀ and NO₂ be met without the need for further mitigation measures. The ability to meet air quality limits in future years largely results from substantial improvements in road vehicle emissions due to further developments in European emissions standards. It also reflects trends in cleaner aircraft engines and moves towards a higher proportion of twin-engined, as opposed to four-engined aircraft with lower emissions.¹⁰⁶

However this view is not supported by the Environment Agency. The Agency made clear in its response to the consultation that it had serious reservations:

After full consideration of the documents our conclusion is that overall, we do not think that the evidence presented is sufficiently robust to conclude that the proposed Heathrow development will not infringe the NO₂ Directive, bearing in mind the uncertainties that need to be addressed. This is because the assessment of air quality pays insufficient attention to these uncertainties and to the range of possible future scenarios for issues like road traffic, meteorological variability, climate change, background air quality and atmospheric chemistry.

We do not contend that the evidence does not exist to support the case for meeting the air quality requirements, but that, as presented in this consultation, the case is not made. When these uncertainties and scenarios have been considered in more depth it may be possible to conclude robustly that there will be no infringement, but this conclusion cannot yet be drawn from this consultation.¹⁰⁷

Michael Meacher has said that concerns about local air pollution had been raised by the EU Environment Commissioner, Stavros Dimas:

¹⁰⁵ European Commission Press Release IP/08/570, [Environment: Commission welcomes final adoption of the air quality directive](#), 14 April 2008

¹⁰⁶ DfT, *Adding Capacity at Heathrow Airport*, 22 November 2007, executive summary p12

¹⁰⁷ Environment Agency Thames Region, [Response to the Department for Transport's consultation: adding capacity at Heathrow](#), 22 November 2007

In a very revealing article in March last year, The Sunday Times showed how the Government created that canard—by allowing senior executives from BAA to select alternate input data for the environmental predictions until they got the right results”.

They did it by removing international flight arrivals from the calculation and by other spurious and misleading devices. As a result, I wrote later in the same month to Stavros Dimas, the EU Commissioner for Environment, asking him to make his own investigation to decide whether he thought the third runway was compatible with EU air quality and noise standards. I received an answer in July, which stated in the third paragraph:

“Technical reports underpinning the Heathrow expansion suggest that nitrogen limit values near Heathrow will be significantly exceeded in 2010, the year in which those limit values become mandatory, and that this will be the case even after 2015.”¹⁰⁸

B. Minister’s Statement

1. Local Air Quality

In his statement to the House of Commons, the Secretary of State for Transport, Geoff Hoon, made clear the Government’s view that emission targets and local air quality requirements would be met even with a third runway in place. He announced a new role for the Civil Aviation Authority and Environment Agency:

- We will give the CAA a new statutory environmental duty to ensure that it acts in the interests of the environment in addition to its existing obligations and duties, and that it follows guidance
- In the case of air quality, where emissions from roads and rail around Heathrow also need to be considered, the Environment Agency will act as the enforcement body, with appropriate guidance from Ministers.¹⁰⁹

The DfT has not set out how the Environment Agency and the CAA will work to limit increases in emissions. According to officials draft guidelines are in the process of being drawn up for consultation.

In response to the Minister’s statement the Environment Agency published the following press release:

Lord Chris Smith, Chairman at the Environment Agency, said:

“We remain deeply concerned about the construction of a third runway at Heathrow as air quality in the area is already at breaking point.

“However, this decision does put strict legal limits on air pollution. Under the new powers given to the Environment Agency as the independent regulator, we will make sure these limits are strongly and rigorously enforced.

¹⁰⁸ HC Deb 11 November 2008 c709

¹⁰⁹ HC Deb 15 January 2009 c355

“The CO₂ and global warming impacts from increased aviation need to be taken into account. Serious questions must be asked about how the aim of reaching an 80% reduction in greenhouse gases by 2050 can still be achieved in light of this decision.”¹¹⁰

The CAA has not as yet published a response to its proposed new role.

2. Climate Change

The Government set out various measures to offset and reduce the increase in carbon dioxide emissions associated with the use of the third runway:

To reinforce the delivery of carbon dioxide savings, and to lay the ground for greater savings beyond 2020, I am announcing today funding of £250 million to promote the take-up, and commercialisation within the UK, of ultra low-emission road vehicles. With road transport emissions so much greater than those of aviation, even a relatively modest take-up of electric vehicles beyond 2020 could, on its own, match all the additional carbon dioxide generated by the expansion of Heathrow.¹¹¹

and

Having taken the lead in promoting the inclusion of aviation in the EU emissions trading scheme, the Government will be pressing hard for international aviation to be part of the global deal on climate change at Copenhagen later this year. I have asked the Committee on Climate Change to report back later this year on the best way in which such a deal for aviation could be structured.

I can announce my intention to promote an international agreement to secure the same kind of progressively stricter limits on carbon dioxide emissions from aircraft as are already in place for cars within the EU.¹¹²

Finally the Secretary of State summarised the steps taken to limit any increase in carbon dioxide emissions:

We are effectively taking three steps to limit any increase in carbon dioxide emissions. First, we are limiting the initial extra capacity to around half of what was originally proposed. Secondly, we intend that new slots at Heathrow will have to be green slots. Only the cleanest planes will be allowed to use the new slots that will be made available. Thirdly, we will establish a new target to limit aviation emissions in the UK to below 2005 levels by 2050. Taken together, that gives us the toughest climate change regime for aviation of any country in the world, which gives Ministers the confidence that we will achieve our 80 per cent. emissions reduction target. In addition, we will make it one of our highest priorities to secure international agreement on measures to reduce aviation emissions.¹¹³

¹¹⁰ EA, *Environment Agency response to Government announcement on BAA Heathrow*, January 2009

¹¹¹ HC Deb 15 Jan 2009 c359

¹¹² *ibid*

¹¹³ HC Deb 15 Jan 2009 c360

a. Green Slots

Whilst there is some headway being made in finding new ways of reducing emissions from aviation, much of the work on technological advances is still at the early stages. Technological fixes to the various environmental problems caused by airplanes (noise, NOx and greenhouse gases) are problematic because potential engine and other design changes are often counterproductive, addressing one problem while worsening another:

In a recent report from Greener by Design's Science and Technology Sub-Group, the group states that, in the short term, improvements in engine design could substantially reduce emissions of NOx, and, further, combined reductions of both CO₂ and NOx emissions could be achieved by advances in airframe and propulsion (although these would currently result in increases in noise). However, the same report notes that the obvious routes for further reductions of non- CO₂ emissions are, unfortunately, likely to increase CO₂.¹¹⁴

Increased efficiencies achieved by measures such as weight reduction and the use of bigger airplanes do result in reduced emissions per passenger, but these will be offset by increases in the number of takeoffs and landings.

Three airlines - Continental, Air New Zealand and Virgin - have so far carried out test flights using a proportion of biofuels in their engines. However first generation biofuels are controversial as they are sourced from conventional crops and raise issues of environmental and social sustainability. There are also technical issues such as dealing with low temperatures which mean that, for the foreseeable future, kerosene will remain the only viable option. Second generation biofuels, still in early stages of development and extracted from sources such as algae, are thought to be much more promising options.

Other promising work is being carried out by engine designers such as Rolls Royce, who are working on a propeller engine that it claims could reduce fuel consumption in aviation by 30%. However this design is also much noisier than conventional jet engines:

There [is] a choice for airlines. "You could go for a low-noise advanced turbofan or you could trade that for some noise and go for a much more efficient engine and that is the question we're asking the aviation industry. What would you rather have — a bit better noise profile or better fuel burn and lower CO₂?"¹¹⁵

Aircraft designs do not at the moment incorporate many of the features highlighted by the Secretary of State. The average life of civil aircraft can be up to 30 years. This means that unless there are some very rapid improvements in technology it will be some time before more environmentally friendly commercial aircraft are in widespread operation. On this issue the Committee on Climate Change concluded in its recent report:

The global emissions forecast assumes a significant efficiency improvement consistent with preliminary analysis carried out for us by QinetiQ. This analysis

¹¹⁴ Environmental Change Institute, ['Predict and decide: aviation, climate change and UK policy'](#), September 2006

¹¹⁵ [Rolls-Royce brings propeller engines back in vogue](#), *Guardian*, 20 October 2008

suggests that a new production aircraft in 2025 flying in an improved operational environment will be 40-50% more fuel efficient compared to a 2006 new production aircraft flying in a 2006 operational environment. Reducing emissions below forecast would require use of either biofuels or hydrogen. Aviation bio-kerosene brings the same sustainability and food supply concerns as other biofuels, but if it could be produced sustainably, significant life-cycle emissions reduction could result. The International Energy Agency (IEA) estimate in their BLUE Map scenario that in a world with a substantial carbon price, biomass-to-liquid fuels could account for 30% of aviation fuel by 2050. Hydrogen is another potential fuel source in the longer term, but there are significant implementation barriers. In addition to infrastructure issues and the need for a sustainable source of hydrogen, the climate effect of increased water vapour at high altitude would need to be investigated.¹¹⁶

3. Extra Capacity and Noise

The DfT set out in its document *Adding Capacity at Heathrow: Decisions Following Consultation* how the provisions for reduced capacity to ensure noise limits are met would work:

Air traffic movements on a three-runway airport would need to be limited in the early years in order to keep within the 127 sq km noise contour. Estimates suggest that the airport could, in 2020, operate at around 605,000 ATMs with a 57dBA noise contour of 126.7 sq km, with further increases in ATMs over time as older, noisier aircraft are retired.

By 2030, a three-runway Heathrow could operate at full capacity and meet the noise limits as well as the air quality limits. At that point, the area of the 57dBA noise contour is expected to be reduced to around 113 sq km and the population within that contour to be around 206,000 (compared with 120 sq km and 252,000 today).¹¹⁷

In the White Paper, the Government committed not to enlarge the area within which average noise exceeded 57 dB. The capacity of the airport with the third runway fully operationally is 705,000 ATM according to the document. Although mainly driven by the need to remain within noise limits the restrictions will also have the benefit of reducing emissions in the shorter term.

C. Reactions to the Announcement

Business representatives welcomed the Government's announcement. The Institute of Directors commented on the need to address environmental limits:

The Government's proposals strike the right balance between maintaining the UK's economic competitiveness and addressing the important environmental issues that it raises. It is essential that the Government's noise and air quality

¹¹⁶ The CCC, [Building a low-carbon economy - the UK's contribution to tackling climate change](#), 1 December 2007

¹¹⁷ DfT, [Adding Capacity at Heathrow: Decisions Following Consultation](#), January 2009

targets are strictly adhered to, and that aviation plays a full part in meeting carbon reduction targets.¹¹⁸

The CBI made a similar point:

"We strongly support the tough environmental standards which have been proposed for the aviation industry - they are stretching but achievable. It's right that full use of the new runway capacity should be dependent on Heathrow meeting strict environmental requirements.

"Linking Heathrow to a high-speed rail network will increase the proportion of passengers who arrive by public transport and vastly improve connections to London and the rest of the UK.

"This is not an easy decision. But this announcement balances the needs of the economy with those of the environment, and provides the right framework for the country's long-term needs."¹¹⁹

The TUC, whilst supporting the expansion, also made clear the importance of addressing the environmental impacts of any growth:

"We strongly support the tough environmental standards which have been proposed for the aviation industry - they are stretching but achievable. It's right that full use of the new runway capacity should be dependent on Heathrow meeting strict environmental requirements.

"Linking Heathrow to a high-speed rail network will increase the proportion of passengers who arrive by public transport and vastly improve connections to London and the rest of the UK.

"This is not an easy decision. But this announcement balances the needs of the economy with those of the environment, and provides the right framework for the country's long-term needs."¹²⁰

Environmental NGOs were much more critical of the decision. For example the RSPB published the following statement:

The RSPB believes guaranteeing increased greenhouse gas emissions from aviation defies logic. Dr Mark Avery, the RSPB's Conservation Director, said: 'This decision shows that the UK's policies on tackling climate change are a sham. The Government will never hit its carbon cuts targets if Heathrow has a third runway.' 'No green sweeteners will compensate for the huge emissions that thousands of extra flights will produce no matter what claims are made for environmentally benign new planes.'¹²¹

¹¹⁸ IoD, [IoD welcomes Heathrow decision](#), 15 January 2009

¹¹⁹ CBI, [CBI welcomes Heathrow third runway and rail proposals](#), 15 January 2009

¹²⁰, [What about jobs at Heathrow?](#), *Guardian*, 14 January 2009

¹²¹ RSPB, [Parliamentary Newsletter](#), February 2009

Greenpeace was also unhappy about the decision and announced the purchase of land that would be developed if the runway goes ahead with the aim of fighting the plans:

This new runway cannot and will not be built. If it's a green light it will shred the last vestiges of Brown's environmental credibility. An expanded Heathrow would become the single biggest emitter of CO₂ in Britain. Labour MPs will lose seats over this as the anti-runway movement grows and grows. We'll fight it every step of the way because the lives of millions of people depend on us all slashing carbon emissions.

Greenpeace has already bought the land earmarked by the Government for the runway and will defend it in the courts, and will never allow BAA bulldozers onto the site. More than 10,000 people from across the world have already signed up to be beneficial owners of the plot.¹²²

HACAN also reacted negatively to the announcement;

We believe we have won the environmental, social and economic arguments against expansion. There will be fury at this decision which flies in the face of the facts. But it will mean that campaigners will re-double their efforts to stop expansion. People will fight the Government in the courts, in their communities, in the town halls and, if necessary, on the tarmac of Heathrow Airport. All the warm words in the world about high-speed rail and environmental safeguards will not hide the fact that the Government has decided to give the green light to expansion.¹²³

The Conservative Party's opposition day debate on 28 January 2008 on the third runway at Heathrow includes further reaction to the announcement with many members expressing concerns about the environmental implications of the decision.¹²⁴

D. Climate Change Act 2008

The *Climate Change Act* sets legally binding targets for greenhouse gas emissions in the UK and requires the Government to put in place five yearly carbon budgets. Reductions in carbon dioxide emissions must be at least 26% by 2020 and 80% by 2050. The Committee on Climate Change has recently published its advice to the Government on the first three carbon budgets for the UK covering the period 2008-2021. It concluded the following on the inclusion of aviation.

The 80% target should apply to the sum of all sectors of the UK economy, including international aviation and shipping. To the extent that international aviation and shipping emissions are not reduced by 80%, more effort would have to be made in other sectors.¹²⁵

and

¹²² Greenpeace, [Heathrow third runway announcement tomorrow: Greenpeace response](#), 14 January 2009

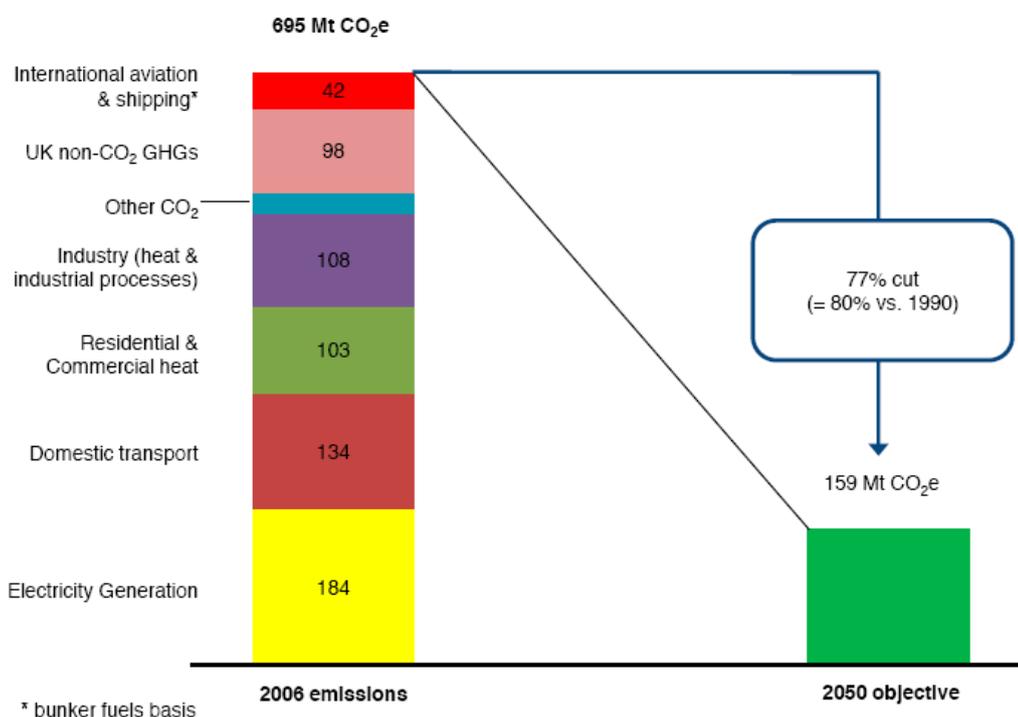
¹²³ HACAN Clearskies, [The Decision of the Dinosaurs](#), 15 January 2009

¹²⁴ HC Deb 28 January 2009 c299

¹²⁵ The CCC, *Building a low-carbon economy - the UK's contribution to tackling climate change*, [Executive Summary](#), 1 December 2008

International aviation and shipping should not be included in budgets, but there need to be clear strategies to achieve emissions reductions, and the Committee's annual reports of progress against budgets should be accompanied by reports on international aviation and shipping. These sectors are important from a climate change perspective and should be covered by the UK's climate strategy and ideally by global agreements. There are, however, complexities that currently make it difficult sensibly to allocate international emissions to the national level. We therefore recommend that budgets should not include international aviation and shipping. But the level of ambition in budgets for other sectors should ideally reflect likely progress in reducing emissions in these sectors, and other mechanisms to drive emissions reduction in aviation and shipping should be in place. The Committee's annual reports on progress in these sectors should keep under review whether at any time it does become appropriate to include either sector within the budget process.¹²⁶

The following figure, included in the CCC's report, sets out the target for reducing emissions for 2050.



Source: UK National Atmospheric Emissions Inventory (2008).

It can be seen from this that, as emissions from aviation are predicted to grow when emissions for all other sections are predicted to shrink, they will constitute a significantly increased proportion of the UK's total emissions by 2050. In *UK Air Passenger Demand and CO₂ Forecasts* the DfT predicted that, taking radiative forcing into account,¹²⁷ the 9% contribution of aviation in the 2005 to total UK emissions will have grown to around 15%

¹²⁶ *ibid*

¹²⁷ Emissions from aviation other than CO₂, such as NO_x and contrail formation, are believed to enhance the contribution to climate change of aviation by a factor of around 2. This is known as radiative forcing.

in 2020 and 29% in 2050. On this issue the Committee on Climate Change concluded the following:

If unchecked, global aviation CO₂ emissions could reach 2.4 GtCO₂ in 2050. At this level aviation emissions would, in 2050, account for 15-20% of all CO₂ emissions permitted under our preferred global emissions reduction scenarios set out in Chapter 1: *Setting a 2050 target*. By 2050 UK related international aviation CO₂ emissions (using the bunker fuels methodology) could, under DfT's central scenario, account for around 35% of the UK's GHG emissions cap implied by our preferred global emissions reduction scenario.¹²⁸

E. Aviation and the EU Emissions Trading Scheme

The Government's response to the above projections has been strongly to support including aviation in the EU ETS. This was one of the stated aims of its EU presidency in 2005:

The Government believes that the best way of ensuring that aviation contributes towards the goal of climate stabilisation would be through a well-designed emissions trading regime. An international industry requires an international solution and we are therefore pursuing this within the International Civil Aviation Organisation. However, until a truly global solution can be found, we are seeking to show EU leadership by pressing for the inclusion of aviation in the EU ETS as soon as possible and certainly before the end of Phase II of the scheme.¹²⁹

The EU Commission published its final proposals for including aviation in the EU ETS in December 2006. The aim was to bring all aircraft that fly into the EU, other than light aircraft, into the scheme by 2012. The proposals were summarised as follows in a Commission press release:

The directive will treat all airlines equally, whether EU-based or foreign. From 2011 all domestic and international flights between EU airports will be covered, and from 2012 the scope will be extended to all international flights arriving at or departing from EU airports. It is estimated that by 2020 CO₂ savings of as much as 46%, or 183 million tonnes, could be achieved each year – equivalent for example to twice Austria's annual greenhouse gas emissions from all sources – compared with business as usual.

To limit the rapid growth in aviation emissions, the total number of emission allowances available will be capped at the average emissions level in 2004-2006. Some allowances will be auctioned by Member States but the overwhelming majority will be issued for free on the basis of a harmonised efficiency benchmark reflecting each operator's historical share of traffic.¹³⁰

The Commission forecast the impact on ticket prices as follows:

¹²⁸ The CCC, *Building a low-carbon economy - the UK's contribution to tackling climate change*, [Chapter 8](#), 1 December 2008

¹²⁹ Defra website, [Including aviation and surface transport in the EU ETS](#), [on 3 February 2009]

¹³⁰ EU Commission Press Release, '[Climate change: Commission proposes bringing air transport into EU Emissions Trading Scheme](#)', 20 December 2006

Assuming airlines fully pass on any extra costs to customers, by 2020 the price of a typical return flight within the EU could rise by between €1.8 and €9. Long-haul trips could increase by somewhat more depending on the exact journey length, due to their higher environmental impact. Nevertheless, ticket price increases are in any case expected to be significantly lower than the extra costs passed on to consumers due to world oil price increases in recent years.¹³¹

On 20 December 2007 the Member State Environment Ministers at the European Environment Council reached agreement on including aircraft emissions in the EU emissions trading scheme. There were some changes from the original proposals:

- The one-year introductory phase for intra-EU flights proposed by the Commission has been dropped, and the scheme will now become operational in a single phase, starting in 2012.
- Emissions will be capped at 100 percent of the average level for the years 2004-2006.
- The level of auctioning has been increased to 10 percent, and revenue from the auctioned allowances should be used to combat climate change.
- An exemption has been introduced for operators with very low traffic levels on routes to, from or within the EU.¹³²

The agreement means that aviation will be included in the EU Emissions Trading Scheme from 2012. Emissions from airlines flying from and within the EU will be capped at 95% of average 2004-06 annual emissions. Airlines will have to buy 15% of the allowances they need through auction; the rest will be free.

Concerns about price volatility and their impacts on the ability of companies, including airlines, to plan future investment in low carbon technologies have been raised recently following a collapse of the EU ETS phase II price. Following the launch of Phase II at the beginning of the year carbon prices peaked at over €29 (£23.60) in July. The general consensus is that a price of at least €30 is required to stimulate investment in low carbon technology. Since then prices have fallen to below €11.90 at the end of January 2009. Unlike the collapse of the prices in phase I - which was due to over-allocation of permits - this appears to be due to reduced demand and companies' needs for increased liquidity, combined with market speculation. This volatility has raised concerns about the effectiveness of the ETS in driving investment:

Vincent de Rivaz, the chief executive of the UK arm of the French-owned gas and electricity group, said politicians and regulators needed to revisit the way the ETS was working and whether it was bringing the results they wanted. "We like certainty about a carbon price," he said. "[But] the carbon price has to become simple and not become a new type of sub-prime tool which will be diverted from what is its initial purpose: to encourage real investment in real low-carbon technology."¹³³

¹³¹ *ibid*

¹³² European Commission website, [Environment: Commission welcomes Council agreement on aviation](#), 20 December 2007

¹³³ [Carbon trading may be the new sub-prime, says energy boss](#), *Guardian*, 30 January 2009

Whether these factors will be detrimental to the ability of the EU ETS to drive reductions in emissions from the aviation and other sectors in the longer term remains to be seen.

III Planning process

A. The procedure

There are several possible procedures that might be followed, depending upon the timing of the application. At the time when the application is submitted, there will almost certainly not be a choice for either the applicant or the Government as to which procedure to use. However, BAA is a private company that can choose when to submit its application. A considerable amount of work is involved in preparation of the application, which may take several years.

1. The Planning Act procedure with a National Policy Statement

The application for the new runway would almost certainly be decided by a procedure in the *Planning Act 2008*, which aims to produce faster decisions. When this part of the Act is brought into force in spring 2010, major infrastructure applications of national importance will require a new form of consent called “development consent”. This will replace other types of consent and end the situation in which a single project can require consents under several different pieces of legislation. There will be a new Infrastructure Planning Commission (IPC) to be composed of independent commissioners. The Act contains objective definitions of major infrastructure projects of national importance, which would include a new Heathrow runway. Development consent will be decided by the IPC on the basis of the relevant National Policy Statement, if one has been designated. A National Policy Statement will set out national policy in relation to one or more specified descriptions of development, and needs to be designated by the Secretary of State.

The 2008 Act lays down some aspects of the new procedure, which differs from public inquiries for planning applications in important respects. The applicant will be expected to have a considerable amount of pre-application discussion with the IPC before submitting the application. The IPC will make an initial assessment of the issues and meet the applicant, along with interested parties (s.88). In the light of that meeting, the IPC will take any necessary procedural decisions (s.89). The IPC will consider written representations (s.90), although it may choose to have oral hearings about specific issues (s.91). There can also be an open floor meeting, if requested by interested parties, at which interested parties can attend (s.93). The expectation, however, is that the examination will not consist of very long sessions of oral evidence and cross examination, as in public inquiries held under other legislation.

The Act is explicit about the time that the process should take. The IPC will be “under a duty to complete the examining authority’s [IPC’s] examination of the application by the end of the period of 6 months beginning with the day after the start day” (s.98). The start date is the date of the s.88 meeting of interested parties. After the examination is complete, the decision-maker must decide the application within a further three months (s.107). There is also provision for a later date being set for completion of the

examination (s.98) and for the decision-making process (s.107), provided that the Secretary of State is notified of the date and the reasons. One may have to add on several months of pre-application discussion. However, the default times leave the impression that the whole process should take roughly one year, rather than the much longer public inquiries under earlier legislation.

2. The Planning Act procedure without a National Policy Statement

There is currently no National Policy Statement on aviation, so it is possible that the planning application might be submitted before designation of that statement. In that case, the *Planning Act 2008* s.74 provides that the IPC can consider the evidence and make a recommendation to the Secretary of State. She, however, will take the final decision.

3. The current procedure – the 1990 Act

Virtually all recent major infrastructure planning decisions have been determined under the *Town and Country Planning Act 1990*. This allows the Secretary of State to call in a planning application to determine it herself, after a public inquiry. Written statements can be submitted, but the inquiry also allows oral evidence and cross examination of witnesses.

The planning inspector, or eminent lawyer, chairing the public inquiry would send the Secretary of State a summary of the evidence and a recommendation whether to refuse the planning application, to grant it or to grant it with conditions. Departmental officials would study the evidence and recommendation, then make a further recommendation to the Secretary of State, for the final decision.

The Secretary of State would then publish her conclusions along with the inspector's recommendations, and her reasons for the decision. The Secretary of State is perfectly entitled to reject a recommendation, provided that she gives appropriate reasons for so doing. The Departmental recommendations have until recently been confidential, but they can now be made public under freedom of information requests. As far as possible, consents under other legislation necessary for the project would be considered at the same time. In certain circumstances, however, that is not always possible.

Already by 2002 procedural changes, such as stricter timetabling, were introduced to speed up the process. In addition, the Government aimed to publish up-to-date statements of Government policy before major infrastructure projects were considered in the planning system.¹³⁴

4. Current procedure – the 2004 Act

However, the Government, and others, considered the 1990 Act procedure too slow, after some lengthy inquiries for important projects, like Terminal 5 at Heathrow, which took 86 months between submission of the planning application and approval by the

¹³⁴ [DTLR Circular 02/2002, Planning Inquiries into Major Infrastructure Projects: Procedures](#), 2002

Secretary of State.¹³⁵ The *Planning and Compulsory Purchase Act 2004* provided a way to speed up the procedure for major infrastructure projects. It allowed for a planning application to be called in by the Secretary of State and submitted to a lead inspector and one or more additional inspectors. That would allow public inquiry sessions to be held concurrently. After the inquiry, the additional inspector reports to the lead inspector on the matters that he was asked to investigate. The lead inspector reports to the Secretary of State.

The 2004 Act retains the same basic public inquiry format as the 1990 Act, allowing oral evidence cross examination of witnesses. Various procedural changes would allow some speeding up of the process, including an increase in the pre-inquiry period and the requirement to set a full timetable within four weeks of the start of the inquiry. That timetable could only be varied with consent of the Secretary of State.¹³⁶

There are rules for who is entitled to appear at a public inquiry but the ODPM Circular 07/2005 states:

In practice, anyone who wishes to appear at an inquiry will usually be allowed to do so, provided that they have something relevant to say which has not already been said.

The rules introduced the concept of a “major participant”, meaning a person who has indicated that he is likely to want to be represented formally and to play a major part in an inquiry. Major participants are entitled to cross examine witnesses.

This 2004 procedure, with two inspectors and concurrent sessions, is being used for the first time with Stansted airport.

B. The National Policy Statement

1. Plans for the new National Policy Statement

There is no National Policy Statement for aviation. However, in an annex to a Written Ministerial Statement on 27 November 2007 announcing the publication of the Bill, Secretary of State for Communities and Local Government, Hazel Blears MP, set out further details about the proposed National Policy Statements, to include:

a statement for aviation incorporating the 2003 Air Transport White Paper in a way which meets our proposed policy and statutory requirements for National Policy Statements; we are already committed to produce a further progress report between 2009 and 2011, which would provide a good opportunity to designate the ATWP in conjunction with that report;¹³⁷

In the report stage of the *Planning Bill*, Lord Adonis noted:

¹³⁵ HMG, [Barker Review of Land Use – Interim Report Executive Summary](#), 2006

¹³⁶ [ODPM Circular 07/2005. Planning Inquiries into Major Infrastructure Projects: Procedures](#), 2005

¹³⁷ HC Deb 27 November 2007, cc15-6WS

Lord Adonis: My Lords, the consultation requirements set out in Clauses 7 and 8 are substantial. The elephant in the Chamber is the Air Transport White Paper. That issue is giving rise to a good deal of concern and it might be helpful if I state categorically that we intend to produce a national policy statement which meets in full the policy and statutory requirements for national policy statement set out in the Bill. As part of that I can say categorically that we will consult again on the airports national policy statements in line with the Bill's requirements. We shall have to make a judgment on how we conduct that consultation in the light of what is in the national policy statements and the extent to which it differs from what is in the Air Transport White Paper, but it will need to meet in full the requirements of the Bill.¹³⁸

A PQ in January 2009 gave more information on the timing of the National Policy Statement:

The Parliamentary Under-Secretary of State, Department for Communities and Local Government (Baroness Andrews): The Government envisage that the Infrastructure Planning Commission (IPC) will be established and able to start giving advice to potential applicants this autumn and ready to begin receiving applications from spring 2010. The timing of any application for a new runway is a matter for the operator of Heathrow Airport, not the Government. Whether or not the IPC would act as the decision-maker on such an application is also dependent on the availability of a designated national policy statement on airports, which is planned for publication in draft by 2011.¹³⁹

The existence of a draft National Policy Statement would not allow the IPC to take the decision. However, it probably would allow the IPC to avoid spending much time on deciding what Government policy actually was.

2. The Air Transport White Paper 2003

The 2003 Aviation White Paper remains of particular importance, because the Government intends to incorporate it in the new National Policy Statement. Exactly how much will be changed remains unclear, but the 2003 White Paper is the starting point. Presumably the Government does not want to re-open the issue of the basic need for new runways in the South East, except insofar as circumstances have changed. This is what the executive summary says of particular relevance to Heathrow about capacity in the South East:

South East England

- There is an urgent need for additional runway capacity in the South East.
- There is no strong case for the development of a second international hub airport alongside Heathrow.
- The first priority is to make best use of the existing runways, including the remaining capacity at Stansted and Luton.
- Provision should be made for two new runways in the South East by 2030.

¹³⁸ HL Deb 10 November 2008, c448

¹³⁹ HL Deb 27 January 2009 c28WA

- The first new runway should be at Stansted, to be delivered as soon as possible (around 2011 or 2012).
- The further development of Heathrow is supported, including a further new runway and additional terminal capacity to be delivered as soon as possible (within the 2015-2020 period) after the new runway at Stansted, but only if stringent environmental limits can be met. An urgent programme of work and consultation will be started to examine this issue further and to consider how best use can be made of the existing airport.
- The Government will not seek to overturn the 1979 planning agreement preventing construction of a second runway at Gatwick before 2019.
- In case the conditions attached to the construction of a third Heathrow runway cannot be met, and since there is a strong case on its own merits for a new wide-spaced runway at Gatwick after 2019, land should be safeguarded for this.
- The option to develop two or three additional runways at Stansted is not supported.
- The option for two new runways at Gatwick is not supported.
- The development of a second runway at Luton is not supported.
- The option to develop a new airport at Cliffe is not supported.
- The development of Alconbury for passenger or freight services is not supported, but the potential for relocation there of aircraft maintenance operations from Cambridge is recognised.
- There is scope for other existing South East airports, including London City, Norwich, Southampton and some smaller airports, to help meet local demand, and their further development is supported in principle, subject to relevant environmental considerations.
- No other proposals put forward during the consultation for new airports at alternative locations are supported.¹⁴⁰

3. Procedure for approval of a National Policy Statement

The *Planning Act 2008* contained a procedure for approval of a National Policy Statement. The Secretary of State may designate a policy statement as a National Policy Statement only after carrying out a sustainability appraisal. A National Policy Statement must give reasons for the policy set out in the statement. In addition:

The reasons must (in particular) include an explanation of how the policy set out in the statement takes account of Government policy relating to the mitigation of, and adaptation to, climate change (s.5).

The Secretary of State must arrange for the publication of a National Policy Statement and lay it before Parliament (s.5). The Secretary of State can review a National Policy Statement when she thinks it appropriate (s.6). The Secretary of State must carry out such consultation and arrange for such publicity as she thinks appropriate (s.7). If the policy includes locations, then the consultation on publicity must include the relevant local authorities (s.8). After the National Policy Statement has been laid before Parliament, if there is a resolution by either House of Parliament or recommendations by

¹⁴⁰ op cit., *The Future of Air Transport*

a select Committee, the Secretary of State must lay before Parliament her response to them (s.9).

C. The National Policy Statement and the IPC decision

Some people have suggested that the IPC would merely be rubber stamping a Government decision to go ahead with the runway, if it were stated in the National Policy Statement and also in the Secretary of State's statement on 15 January 2009. That is potentially a serious criticism of the procedure which, if correct, might undermine it. However, the issue is not so clear cut.

The Planning Act 2008 s.104 states the role for the National Policy Statement in a decision by the IPC. References to the Council relate to the single commissioner option and are not relevant here. In particular:

(3) The Panel or Council must decide the application in accordance with any relevant national policy statement, except to the extent that one or more of subsections (4) to (8) applies.

(4) This subsection applies if the Panel or Council is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.

(5) This subsection applies if the Panel or Council is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the Panel or Council, or the Commission, being in breach of any duty imposed on it by or under any enactment.

(6) This subsection applies if the Panel or Council is satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment.

(7) This subsection applies if the Panel or Council is satisfied that the adverse impact of the proposed development would outweigh its benefits.

(8) This subsection applies if the Panel or Council is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.

(9) For the avoidance of doubt, the fact that any relevant national policy statement identifies a location as suitable (or potentially suitable) for a particular description of development does not prevent one or more of subsections (4) to (8) from applying.

The IPC would not be going back to the beginning in deciding whether to meet demand for higher airport capacity and, if so, how to distribute the new and expanded airports throughout the country. It would take the National Policy Statement as its starting point. For the determination of the planning application to be a proper test, it must be possible that the IPC could reject a particular planning application referred to it.

The qualifications in sub-sections (4) to (8) are important because they introduce the possibility that the IPC might take account of the National Policy Statement but still – in certain circumstances – reject an application for a development in line with that statement. For example, under subsection (4) the IPC might in theory decide that approval of a new runway would lead to the UK being in breach of international obligations relating to carbon dioxide or nitrogen dioxide emissions. Subsection (7) is very broad, allowing the IPC to reject an application if it is satisfied that the adverse impact of the proposed development would outweigh its benefits.

A second possibility is that the IPC might accept the principle of a new runway at Heathrow, but reject the particular application submitted by BAA. It might, for example, decide that the proposed runway was too long or in the wrong place. The proposed terminal might be too high or too large.

It is also unclear just what would be sorted out during the pre-application discussions with the IPC. Since the Act has not yet come into force, we do not have any examples to guide us here. With local councils, this can be a sensitive area with critics arguing that agreements between developers and planning officers before submission of an application can in practice, sometimes make rejection almost impossible.

D. Could the decision be changed?

1. Conservative Party policy

Theresa Villiers' reply to Geoff Hoon's statement of 15 January included the passage:

The world has moved on when it comes to Heathrow, but Labour just has not moved with it. The Government are on the wrong side of the argument and their environmental credibility is in tatters. It is time for Labour to scrap its plans for a third runway. If it will not do that, it is time for it to call a general election so that the country can elect a Conservative Government who will prevent this environmental disaster from going ahead.¹⁴¹

In an interview in January 2009 with *The Guardian*, David Cameron made the same point:

Cameron reaffirmed the Tories' commitment to scrap the third runway should they come to power. He said "what business needs to recognise is that the third runway is just not going to happen. There is such a coalition of forces against it. There's such an environmental case against."

He also said he did not believe an incoming Conservative government would need to pay compensation since little financial outlay would have been made on the new runway by the next election by BAA.¹⁴²

2. Liberal Democrat policy

Norman Baker made a commitment that the Liberal Democrats would scrap the runway:

Norman Baker (Lewes) (LD): The decision to proceed with the third runway is the worst environmental decision that the Government have made in 11 years. It drives a jumbo jet through their Climate Change Act 2008, on which the ink is barely dry. With a commitment to a reduction of 80 per cent. in carbon emissions,

¹⁴¹ HC Deb 15 January 2009, cc361-2

¹⁴² "Cameron: we will build pounds 1bn 'smart grid' to green Britain: Tories unveil low carbon plan as Heathrow decision causes outcry: Tories' pounds 1bn 'smart grid' to green Britain", *Guardian*, 16 January 2009

how can the Secretary of State and his colleagues possibly justify the construction of a new runway? It is also one of the worst political decisions in 11 years, on a par with that on the millennium dome. It has huge opposition in the Labour party, and has united the opposition in the House and in the country and destroyed the Government's green credentials. I make it plain that the Liberal Democrat manifesto will include a commitment to reverse the decision. That is not insignificant given the likely arithmetic in the next House of Commons.¹⁴³

3. The 2008 Act and policy changes

At the moment it looks as if the planning application will not have been submitted by the last date for a General Election on 3 June 2010. If it has been submitted without a National Policy Statement in place, then the final decision would go to the Secretary of State in any case. However, it is worth considering the case in which the planning application has been submitted with a National Policy Statement in place, but then a different party comes to power after a General Election.

Once the decision whether or not to approve the application has been announced by the IPC, there is no procedure for the Secretary of State to overturn it. However, it is possible that the Secretary of State could intervene at an earlier stage to delay the process, so as to take into account a new National Policy Statement. Under s.108 of the *Planning Act 2008*, the decision-making process can be suspended during a review of the National Policy Statement. Section 109 would allow the Secretary of State to take the decision in certain circumstances, following suspension.

¹⁴³ HC Deb 15 January 2009, c363

IV Statistical projections

A. Cost-benefit analysis

In assessing the case for LHR expansion, the DfT used a technique known as cost-benefit analysis. In cost-benefit analysis, the relative costs and benefits of a scheme over time are expressed in monetary terms. This incorporates both elements usually expressed in financial terms, such as profit, and those that have to be assigned an estimated monetary value, such as pollution. These costs and benefits over time are discounted over time to give a present value, reflecting the time value of money and uncertainty.

Using cost-benefit analysis, the policy proposals for LHR expansion can be assessed on the basis of monetised net benefits: total benefits expressed in financial terms less total costs. **The DfT estimates that the monetised net benefit of a third runway and a new terminal from around 2020 is £5.5bn at 2006 prices.**

The table below summarises the components of this figure, together with noting other potential costs and benefits that were not monetised by the DfT:

Cost-benefit analysis calculations: third runway and sixth terminal from 2020

	Included		Key factors not included
Benefits	Passenger benefits	£9.3bn	Wider economic benefits
	Airport operator	£6.2bn	Reduced delays
	Government (Air Passenger Duty)	£3.7bn	Greater airport resilience
	Air freight users	£0.0bn	
	Total monetised benefits	£19.2bn	
Costs	Infrastructure costs	£7.8bn	Landscape and townscape
	Greenhouse gases	£5.4bn	Historic environment
	Noise	£0.3bn	Biodiversity
	Local air quality	£0.1bn	Community severance
	Accidents	£0.0bn	Road congestion and noise
	Total monetised costs	£13.7bn	
Net monetised benefit		£5.5bn	

Source: DfT, *Adding Capacity at Heathrow Airport: Impact Assessment*, January 2009

Criticisms of this cost-benefit analysis fit into two broad categories:

1. The monetised analysis does not account for various factors. On the costs side, the calculations do not consider the value of lost greenfield and agricultural land, or the community severance implications of the loss of the village of Sipson. Conversely, the calculations also fail to take into account the advantages of potential reductions in flight delays and wider economic benefits through improved productivity and competitiveness as identified in the Eddington Report.¹⁴⁴

¹⁴⁴ [The Eddington Transport Study: The case for action: Sir Rod Eddington's advice to Government](#), December 2006

2. The cost-benefit analysis can be criticised on the basis of the estimates and assumptions used by the DfT. Prominent among these are complex models of air passenger demand and greenhouse gas emissions. These models are considered in section IV.C of this paper.

It is also important to bear in mind that DfT cost-benefit analysis does not consider the net benefits or costs of alternative potential infrastructure schemes. For example, the investment required for LHR expansion might be spent on a new airport in the Thames estuary, a high speed rail scheme, or indeed a hospital. Such schemes may also have positive net benefits if considered independently. Understanding the choice between desirable but mutually exclusive results uses the concept of this ‘opportunity cost’. In the context of this analysis, it means that projecting a net benefit from LHR expansion does not necessarily imply it is the most efficient allocation of resources.

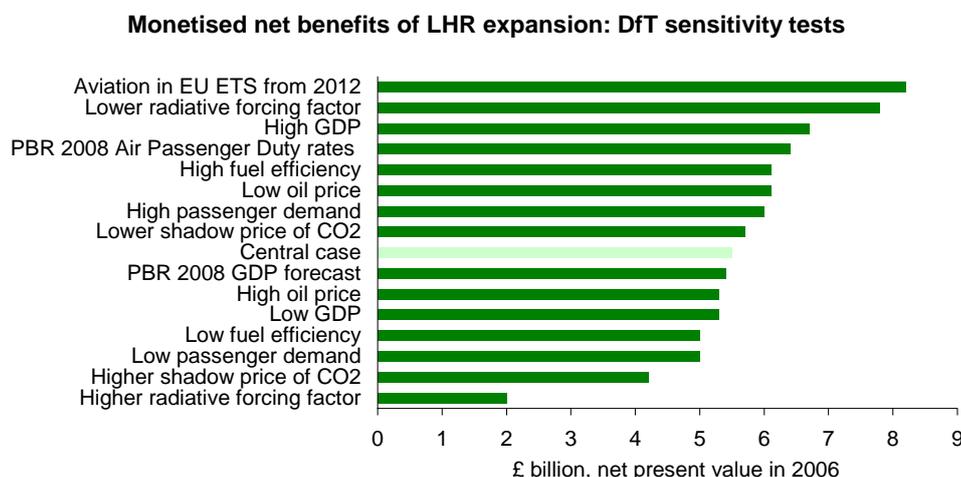
In addition, the impacts of LHR expansion will not be even. Some groups will benefit disproportionately, while others will be negatively affected. Differing opinions of the relative importance of each group will result in differing assessments of the merits of the proposals.

B. Sensitivity analysis

In its analysis, the DfT acknowledges that many of its assumptions and projections are subject to considerable degrees of potential error. For example:

- There is still considerable dispute among scientists about the effects of greenhouse gases emissions at high altitude, accounted for in the DfT’s model by a ‘radiative forcing factor’
- Projections of the costs of flying require the projection of volatile economic data such as oil prices and exchange rates

To take into account these uncertainties, the DfT conducted ‘sensitivity tests’, evaluating the net monetised benefit under a range of different assumptions. The chart below summarises the results:



There are several points of note:

- All the estimates are positive: under none of the circumstances considered does the costs of LHR expansion exceed the benefits
- There is considerable variation in the results: under these different assumptions the estimated net monetised benefit ranges from £8.2 billion to £2.0 billion
- The DfT does not consider combinations of alternative assumptions in its sensitivity analysis. For example, a combination of factors which would, all other things being equal, reduce the benefits of expansion, such as a high radiative forcing factor, plus lower GDP and a higher oil price, are not considered together. Likewise, combinations of factors that would serve to increase benefits are not considered
- Revised forecasts and tax changes made in the November 2008 Pre-Budget Report are included in the DfT analysis as sensitivity tests, rather than in the base scenario, which uses 2008 Budget rates. The economic assumptions used are considered further in section IV.C.1 below

Further details of the sensitivity tests are provided in the DfT's forecasts.¹⁴⁵

C. Projecting benefits and costs

The DfT used a range of econometric and statistical models to estimate the benefits of LHR expansion. Two are particularly important: forecasts of air passenger demand and forecasts of CO₂ emissions. Intuitively, they cover competing concerns: more demand for flights, if met, will result in higher CO₂ emissions. However, their interaction is crucial to the viability of LHR expansion: there must be sufficient future demand for flights from Heathrow to justify the infrastructure costs, but associated greenhouse gas emissions must not prevent the UK meeting its environmental obligations.¹⁴⁶

1. Air passenger demand

The DfT uses a two stage process for projecting passenger demand:

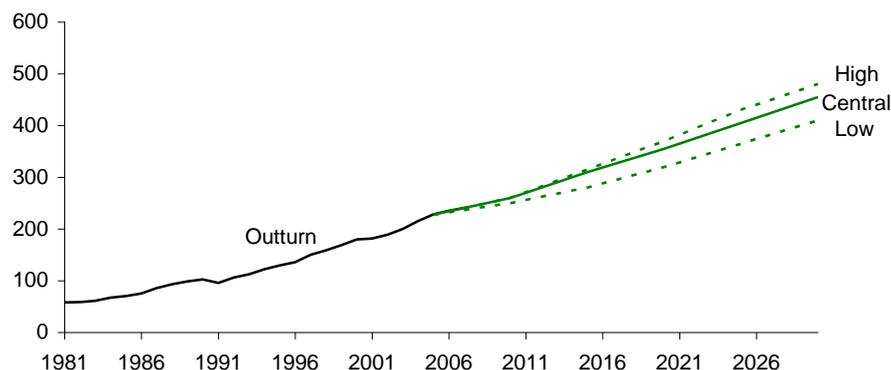
1. Forecast demand using the National Air Passenger Demand Model. This combines projections of economic data with projections of air fares, estimated through projections of fuel costs, carbon charges and duty rates
2. Constrained demand through the National Air Passenger Allocation Model. This allocates passengers to airports and extrapolates corresponding air transport demand, taking into account future airport capacity constraints

With the exception of short term fluctuations associated with factors such as recessions and oil price shocks, air passenger demand in the UK has shown a strong upward trend over several decades. The DfT projects that constrained demand will continue to grow broadly in line with the long term trend. This is demonstrated by the chart below:

¹⁴⁵ DfT, [UK Air Passenger Demand and CO₂ Forecasts](#), January 2009

¹⁴⁶ Passenger demand is a key element of projecting CO₂ emissions. CO₂ emissions also feed into the demand forecasting model through environmental charges and air fares

DfT projections of passenger demand
Capacity constrained; million passengers per annum



The DfT projects that constrained UK air travel demand will double from 228 million passengers per annum (mppa) in 2007 to 455 mppa in 2030, within a range of 410–480 mppa, under the third runway proposals. Less complex modelling for the period beyond 2030 suggests that growth in demand will slow as capacity constraints become “more significant”, to around 525 mppa by 2050.¹⁴⁷

This projection for a long-term continuation of strong demand growth is made despite recent slowdowns in observed demand. The DfT argues that this is because the slowdown is short term and cyclical, rather than an indication of any change in the underlying trend:¹⁴⁸

The recent slower growth in demand is due to short term, cyclical factors, rather than a change in the way economic growth and air fares drive demand growth.

The DfT goes on to quote a Civil Aviation Authority report on aviation demand, saying slower growth in the past two years was a result of “the current economic environment and competition from domestic rail services, rather than any longer term, structural change in demand for air services.”¹⁴⁹ It might be argued that competition from domestic rail services constitutes a longer term, structural change. In addition, two key questions regarding the reliability of the DfT model, which has so far only been tested during a relatively stable period of economic growth, can be addressed:

1. Whether the model adequately takes into account the current economic downturn
2. Whether the downturn has potential long-term implications for the model

The economic data used in the National Air Passenger Demand Model do not take into account the latest circumstances. This is partly unavoidable, as data are being continuously published, but in other cases the latest available statistics have not been used. For example, the model uses:

¹⁴⁷ DfT, [UK Air Passenger Demand and CO2 Forecasts](#), January 2009, section 2

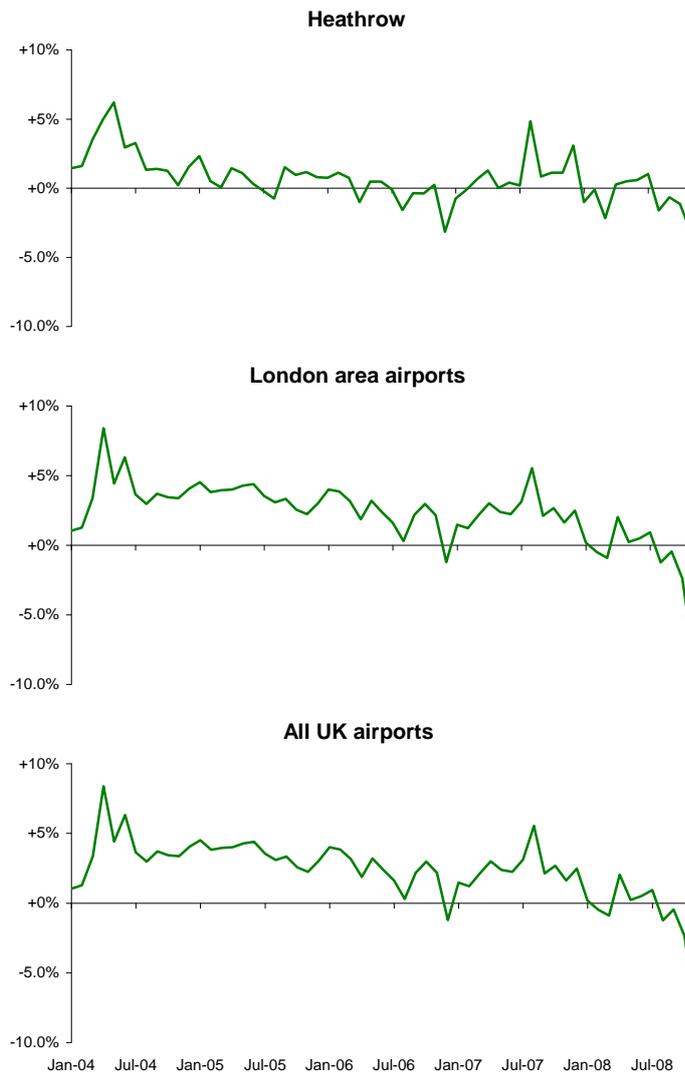
¹⁴⁸ *ibid.*

¹⁴⁹ *ibid.*, quoting CAA, [Recent Trends in Growth of UK Air Passenger Demand](#), January 2008

- UK GDP projections from the 2008 Budget, rather than the more pessimistic projections in the 2008 Pre-Budget Report
- Western Europe GDP projections from the 2007 IMF *World Economic Outlook* and a proviso that the rate of growth in Western Europe will not exceed that in the UK in any period over the years to 2030
- The assumption that future dollar exchange rates will equal the average of the twelve months to September 2008

The charts below show recent monthly trends in air passenger movement growth, from Civil Aviation Authority Data up to November 2008:¹⁵⁰

Air Passenger Movements by month 2004-2008: change over previous year



Though fluctuations in growth at Heathrow are less marked, partly as a consequence of existing capacity constraints, all three charts show similar patterns:

¹⁵⁰ Civil Aviation Authority, [UK Airport Statistics](#)

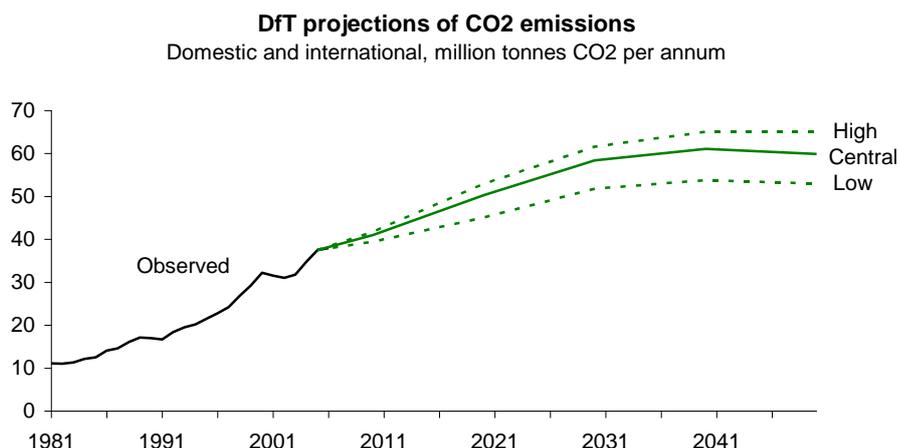
- Rapid growth in air travel in 2004 and 2005, with total UK airport air passenger movements averaging 6% year-on-year growth
- Slower, but still positive, growth in 2006 and 2007
- Falls in demand in recent months. There were 9.8% fewer air passenger movements at all UK airports in November 2008 compared with November 2007

These very recent falls in air passenger movements do not necessarily imply that long term projections of demand growth are wrong. Looking at the last recession, passenger numbers continued to rise rapidly through the 1990s following a fall in 1991.¹⁵¹ It is, however, conceivable that short term changes in behaviour associated with a recession could translate into differences in long term trends. For example, to reduce flight costs a company might introduce video conferencing equipment that they subsequently retain. Any increased tendency for people to avoid taking flights on environmental grounds could have a similar effect. Assessing any such trends is very difficult at this time.

2. CO₂ emissions

The DfT's projections of constrained air passenger feed into their CO₂ Forecasting Model, via a fleet mix model which takes into account the projected fuel efficiency of the air fleet.

Domestic and international UK aviation emissions have followed an upward trend over recent decades, doubling since 1992.¹⁵² The DfT estimates that they will continue to rise, as demonstrated by the chart below:



The DfT estimates that UK aviation emissions will rise rapidly from 37.9 MtCO₂ in 2007 to 50.3 MtCO₂ in 2020 (on a range of 45.1-52.9 MtCO₂). The rate of growth is then projected to slow, with emissions falling between 2040 and 2050, when it is estimated they will be 59.9 MtCO₂ (on a range of 59.9-65.0 MtCO₂).

These estimates can be interpreted in the context of key targets and policy decisions:

¹⁵¹ op cit., *UK Air Passenger Demand and CO₂ Forecasts*, figure 2.1

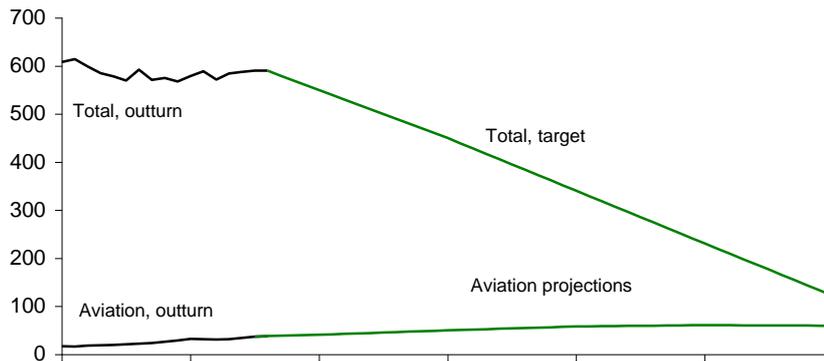
¹⁵² Data from the Defra [e-Digest of Statistics](#), including both domestic aviation emissions and international aviation emissions as reported in national estimates

- The Climate Change Act 2008 commits the Government to reduce UK CO₂ emissions by at least 26% by 2020 and by 80% by 2050 compared to a 1990 baseline
- The Committee on Climate Change has recommended that the scope of the Climate Change Act targets does not include international aviation and shipping. However, the Government and the Committee on Climate Change believe that such emissions should be part of the UK’s climate change strategy
- An agreement is in place for aviation emissions to become part of the EU Emissions Trading Scheme (ETS) from 2012. It would require airlines that operate flights within, into and out of the EU to surrender allowances to cover their EU emissions. Operators would have to buy allowances from other sectors where emission reductions have taken place for emissions above the capped level. In theory this means that an increase in aviation emissions above the cap would not result in an increase in overall emissions

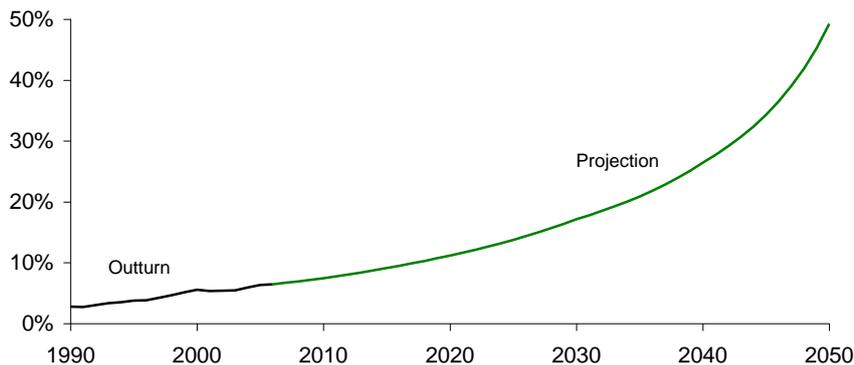
The UK’s obligations in terms of reducing CO₂ emissions over the modelled period are therefore unclear. The charts below show a hypothetical situation where:

- The DfT’s central projections of CO₂ emissions from aviation are correct
- International aviation emissions, as currently measured, are included in the UK’s emission reduction targets in 2020 and 2050. These targets are met, with falls approximated to straight lines
- Potential offsetting of aviation emissions within the EU ETS is not accounted for

Total and aviation UK CO₂ emissions: 1990-2050



Aviation as % of total UK CO₂ emissions: 1990-2050



Under this specific set of assumptions, aviation's share of the UK's total CO₂ emissions rises from 6.% in 2006 to 11% in 2020 and 49% in 2050. By 2050, one of every two tonnes of CO₂ emitted by the UK would be as a result of aviation. By implication, all other sectors, which accounted for 94% of UK emissions in 2006, would account for 51% of emissions in 2050. While emissions from aviation would increase by 57% between 2006 and 2050, emissions from all other sectors would fall by 89%.

A variety of other scenarios, using alternative assumptions, are modelled in the DfT's forecasts.¹⁵³,

The DfT stresses that there are "elements of conservatism" in their technological assumptions which may mean that CO₂ emissions from aviation do not grow as much, or as quickly, as projected:¹⁵⁴

A challenging but achievable target for fuel efficiency is assumed, but beyond this we do not assume any further major technological advances, nor do we assume the use of low carbon fuels. If such developments take place in the period to 2050 then CO₂ emissions would be lower than the central case...

3. Other projections

In order to estimate the net benefit of LHR expansion, the DfT makes a number of other projections and assumptions.¹⁵⁵ These include:

- Estimates of the land, capital and construction costs associated with LHR expansion
- Estimates of the financial value of the air quality implications
- An assessment of the landscape and visual impact
- An appraisal of the historic environment impact
- An assessment of possible biodiversity implications
- An Equalities Impact Assessment

V What happens next?

It is now up to BAA, as the owner of Heathrow, to decide whether to submit a planning application, what that application should contain, and when they wish to submit it.

A. Judicial review?

There has been speculation about a possible Judicial Review in the High Court. It is possible that there might be a Judicial Review of the decision to approve the new runway, based on alleged inadequacies in the consultation process. In itself, such a challenge would not necessarily cause delays. The reason is that the Government does

¹⁵³ DfT, [UK Air Passenger Demand and CO₂ Forecasts](#), January 2009, Annex K

¹⁵⁴ op cit., [UK Air Passenger Demand and CO₂ Forecasts](#), section 3

¹⁵⁵ These documents are available online on the [DfT website](#)

not expect BAA to submit its planning application for a long time, perhaps 2011 or later. Similarly, the Government intends to have its National Policy Statement ready in draft by 2011. That timetable could incorporate a few months waiting for a court result, while work continued on the planning application and the National Policy Statement behind the scenes. However, there might be more serious consequences if the High Court were to decide that the Government had not followed correct procedure.

It is possible to challenge a decision of the IPC to grant development consent, provided that the claim is filed within six weeks of publication of the decision (*Planning Act 2008* s.118).

B. Planning process

As noted above, two processes are continuing. BAA is preparing its planning application and the Government is developing its National Policy Statement on aviation. Neither process is expected to be completed until 2011 or later. The timing of the planning application will determine the planning procedure. As explained in the section on planning, an application in 2009 would be determined under the *Planning and Compulsory Purchase Act 2004*, with a public inquiry followed by a ministerial decision. A planning application submitted after spring 2010 would be decided under the *Planning Act 2008*. An application submitted before designation of the National Policy Statement would be examined by the new Infrastructure Planning Commission. The final decision would be taken by the Secretary of State. A planning application submitted after the National Policy Statement has been designated, probably in 2012, would be examined and decided by the Infrastructure Planning Commission.

C. The future of BAA

As outlined in section IA, above, the British Airports Authority was established by the *Airport Authority Act 1966*. The *Airports Act 1986* restructured the Authority into a main holding company, BAA plc, with seven separate airport companies operating. It was privatised in July 1987. In June 2006 the Ferrovial Consortium, a Spanish construction firm, bought BAA. Although BAA clearly has its supporters, over the years the voices in favour of breaking up BAA have grown louder, in particular as regards the effective monopoly position it holds over the main London airports, including Heathrow.

Following a referral by the Office of Fair Trading (OFT) the Competition Commission (CC) announced an investigation into BAA in March 2007.¹⁵⁶ In April 2008 the Commission published a report on its 'emerging thinking'. The accompanying press notice stated that "BAA's common ownership of seven airports in the UK may not be serving well the interests of either airlines or passengers".¹⁵⁷ The report stated that the CC was inclined to the view that:

¹⁵⁶ OFT press notice, "OFT refers BAA airports to the Competition Commission", 30 March 2007; and CC press notice, "Competition Commission airports investigation: invite for evidence", 3 April 2007; all material associated with the investigation available on the [CC website](#)

¹⁵⁷ CC press notice, "CC sees potential for competition at all BAA airports...", 22 April 2008

- There is potential for competition between Edinburgh and Glasgow airports, hence common ownership adversely affects competition between them;
- There is a 'real possibility' of competition between the BAA London airports but common ownership adversely affects competition between them; there is also potential for competition from Heathrow and Gatwick to Southampton, if not vice versa; hence competition problems also derive from BAA's ownership of Southampton.¹⁵⁸

The CC's provisional findings report was published on 20 August 2008, along with a notice of possible remedies and an accompanying press notice. The press notice gives a good short overview of the provisional findings. Generally, it states:

The Competition Commission (CC) has provisionally found that there are competition problems at each of BAA's seven UK airports (Heathrow, Gatwick, Stansted and Southampton in England, and Edinburgh, Glasgow and Aberdeen in Scotland) with adverse consequences for passengers and airlines. A principal cause is their common ownership by BAA. There are also competition problems arising from the planning system, aspects of Government policy and the system of regulation.¹⁵⁹

The CC also published its proposed remedies. If these are implemented, the CC will order BAA to sell two of its three London airports, and also either Edinburgh or Glasgow airport. This is a more radical set of remedies that was anticipated in many of the press reports that preceded the report.¹⁶⁰ In response to the report, Colin Matthews, chief executive of BAA, said:

By calling not just for a fundamental restructure of BAA but also for a review of the Government's Air Transport White Paper, the Commission risks delaying that delivery of new runways and making better customer service less, not more, likely. We will be seeking urgent clarification from the Government of how it believes this report's findings can be reconciled with the air transport policy it established in 2003 and its current review of economic regulation.¹⁶¹

The CC will publish its final report in February 2009.

The BBC reported that BAA has said it has "no intention" of selling Heathrow.¹⁶² However, the loss of either one or two of its major airports around London will likely cause some form of strategic rethink by BAA. Quite what impact that will have on the application for a third runway and a sixth terminal, we do not know.

¹⁵⁸ CC, [BAA market investigation: emerging thinking](#), 22 April 2008, para 36

¹⁵⁹ CC press notice, "[CC may require BAA to sell three airports](#)", 20 August 2008

¹⁶⁰ see, e.g.: "Watchdog expected to order BAA's break-up", *The Guardian*, 18 August 2008; "Commission to break up BAA", *The Sunday Telegraph*, 17 August 2008; and "International bidders line up for BAA airport sale", *The Sunday Times*, 17 August 2008

¹⁶¹ BAA press notice, "[BAA responds to Competition Commission's provisional findings](#)", 20 August 2008

¹⁶² "BAA 'should sell three airports' ", *BBC News Online*, 20 August 2008

D. June 2010: what options might be available to a new Government?

At the moment it looks most unlikely that the planning application will even have been submitted by June 2010. An incoming Government that wanted to scrap the project would have plenty of opportunity to do so. It might amend the *Planning Act 2008* so that all decisions were taken by the Secretary of State after examination by the Infrastructure Planning Commission; it could simply not designate a National Policy Statement, which would automatically leave the final decision to the Secretary of State; it could designate a National Policy Statement rejecting the new runway.

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